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NASHVILLE JOURNAL

OF

MEDICINE AND SURGERY

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Original Communications.

VACCINATION.

ITS POWER TO PROTECT THE SYSTEM AGAINST VARIOLOUS CONTAGION.

BY JAS. F. WEEDS, SURGEON U. S. ARMY.

[CONTINUED FROM THE JUNE NUMBER.]

THE usual mode of procuring vaccine virus in this country is to be deprecated. Arm to arm vaccinations are seldom performed, and animal, or heifer, vaccinations, are extremely infrequent. At least nine-tenths of all the vaccinations performed in the United States are done with preserved lymph or dried crusts, and I have shown to what an extent this form of

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vaccination diminishes the probability of a successful result, and how vastly it increases the liability of spurious vaccination; but serious as these evils are, they are trivial compared with the danger arising from the use of impure or degenerate lymph.

Gentlemen, if a case or two of small-pox break out in your vicinity, the neighboring people become justly alarmed, and then, if never before, recognize the protective power of vaccination, and flock to you to vaccinate their unvaccinated children, and to re-vaccinate other members of their own families. Perhaps you have no vaccine virus. You send to the nearest practitioner; he, like yourself, has none, and your only alternative is to send by telegraph or mail to a dealer in some remote city. In due time your vaccine crusts arrive; but, let me ask, what do you know about it, or of the source from whence it came? It may have been taken from some one broken down with syphilis—infected with scabies—dying of phthisis—exhausted with scrofula; or the lymph may have been abstracted from the vesicle for previous vaccinations, the resulting crust containing little else than the products of ordinary inflammation; or it may have been derived from a spurious vaccination. There is not a gentleman on this floor who would knowingly use such impure or defective virus, yet so long as the profession depends on the general dealer for a supply of vaccine virus, you can have no guarantee that it is not impure or deteriorated, or that it is not derived from some person infected with some of the diseases I have mentioned; nor can you know anything of the health of the child from which it was taken, or the antecedents of its parents; and without this knowledge you cannot anticipate what will be the sequel of your operations. It may produce a perfect vesicle, and it may impart all the protection vaccination can give; or it may be followed by spurious results, or perhaps some loathsome disease. To say the least, there are dangers in this mode of vaccination that a prudent practitioner would shrink from incurring.

Unfortunately, we have not, like England and other Euro-

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pean countries, national vaccine establishments, where the history of every case is a matter of record, and from which a pure supply of vaccine lymph can at all times be procured; but I hope the day is not far distant when they will be established by legal enactment.

There is a wide-spread opinion, in this country and in Europe, that vaccine lymph necessarily degenerates by often-repeated transmissions through the human system. In examining this part of our subject, it is necessary to draw a broad line of distinction between deterioration as an invariable result of continuous vaccination and deterioration from repeated imperfect vaccinations.

Jenner made this distinction, and in it may be found the explanation of the facts brought forward by either side of the controversy. In 1816, this distinguished observer writes—"That lymph, in passing even from one individual to another, might undergo a change which rendered it unfit for further use"; but he adds, that the vesicles he was then producing, "are in every respect as perfect and correct in size, shape, color, state of lymph, the appearance of the areola, its tints, and finally, the compact texture of the scab, as they were in the first years of vaccination, and, to the best of my knowledge, the matter from which they are derived was taken from a cow, about sixteen years ago."* And Dr. Seaton, in 1868, in referring to the above quotation, says: "The same certainly appears to be the case at the present day."

If proper care is not exercised in selecting subjects from which lymph is to be taken, or if it is not taken until the vesicle is too old, and it is mingled with the products of ordinary inflammation, or the dried crusts are used, the lymph will necessarily deteriorate and produce vesicles of smaller size, running through the various stages in an abbreviated period, causing little general disturbance, and rendering only partial protection against small-pox infection. Such lymph should be discarded, and that which is more active substituted

* Barren's Life of Jenner, vol. ii. p. 398.

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therefor; but it is highly probable that the active lymph is as far removed from the cow as the weaker, and that deterioration has resulted from the above-named causes, and not from its frequent transmission through the human subject.

Dr. Seaton, who has had unlimited facilities for observation, is of the opinion that the general lymph supply of England has not undergone any necessary deterioration.

Dr. Steel, of Liverpool, says: "The nurses in the small-pox hospital of the city are all vaccinated with humanized lymph, and, during a period of thirty years, not one instance occurred of infection from patients in the hospital."

The same accurate observer points out that the great bulk of arm to arm vaccinations, since the first discovery of the process, have been performed with lymph transmitted from the early vaccinations of Jenner; therefore, whatever benefits have been derived from vaccination, are due to humanized, and not to the so-called animal lymph. The lymph used at the London and Liverpool branches of the "National Vaccine Establishment," was originally obtained from Jenner, and at the other stations it was either obtained from the same source, or from other vaccinators contemporaneous with him.

Dr. Marson states that a skillful vaccinator should not fail of producing a typical vesicle more than once in one hundred and fifty vaccinations. At the Blackfriar's station, in 1864, there was not a failure in a thousand operations. At the Birmingham Station, in 1865, but a single one missed in a thousand and sixty-three cases. Mr. Sheppard, at the Bristol Station, vaccinated two thousand children without once failing to produce a satisfactory result. It must be borne in mind that these vaccinations were performed with lymph derived from Jenner, or from vaccinators of that period—that it had been humanized for half a century, and had been transmitted over a thousand times through the human subject.

These proofs of undiminished efficacy of the infective and protective power of humanized lymph, demonstrate the fallacy of the doctrine that it necessarily degenerates by often repeated transmissions through the human body; but while we do

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this, we must, in candor, confess that experience as certainly shows that a portion of the lymph now in use has, from various causes, lost more or less of its infecting, and probably of its protecting, power; all such lymph, however, should at once be discarded, and only the most active used, and with proper care this activity can be continued indefinitely.

The frequency with which degenerate vaccine virus has been met with, and the unsatisfactory results derived from its use, has caused many vaccinators to adopt an opinion opposed to those herein advocated, and they have sought a remedy by the introduction of animal vaccination. Prominent among these reformers are Drs. Blanc, Brainwood, Negri, De Pauls, Warlomont, and Bezeth, who contend that the infecting and protecting power of vaccine lymph is necessarily impaired by oft-repeated transmission through the human body, and claim the superiority of heifer to arm to arm vaccination.

In 1866, the French Academy of Science instituted a series of experiments to determine the relative value of heifer and arm to arm vaccination. An inoculated heifer from the establishment of Dr. Negri, and a cow with spontaneous cow-pox, from Beaugency, were procured, and from them 681 persons were vaccinated, and, as a basis of comparison, 897 others were, at the same time, vaccinated with humanized lymph. After carefully observing the results, the Commission concluded that, "if the lymph was taken from the cow at a sufficiently early period, and all known conditions for its successful introduction observed, we are sure to obtain vesicles equal in number to those produced by humanized lymph."

At St. Petersburg Foundling Hospital, in 1865, vaccination with retro-vaccine lymph was inaugurated, but proving unsatisfactory, it was abandoned in 1867, in favor of animal vaccination. At this establishment, from one to two hundred children are vaccinated daily, directly from the heifer.

In 1862, while on duty as Surgeon in charge of General Howard Hospital No. 4, in this city, I received from Surgeon General Wm. A. Hammond, U. S. A., a number of vaccine crusts derived from the heifer. With these I vaccinated one

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hundred men; twenty-five were primary and seventy-five re-vaccinations. As a basis of comparison, I vaccinated an equal number with humanized lymph. After carefully comparing the results, I arrived at the following conclusions:

Failure to produce typical vesicles are much more frequent with animal than with humanized lymph. The human subject is with difficulty affected by the former.

That within a few hours after vaccination with heifer lymph, an intensely livid circle forms around the seat of the operation, and continues for several days; this alike occurs in successful and unsuccessful cases. In the latter it fades from the third to the fifth day; in the former a papule appears at the point of puncture from the sixth to the tenth day, which passes through the vesicular and pustular stages, as in vaccination with humanized lymph. The areola is larger, more intensely red, and indurated, in animal vaccination, the arm sometimes swelling from the hand to the shoulder. The phenomena are all delayed; the vesicle rarely forms before the tenth day, and in one instance it was delayed to the sixteenth; the desiccation of the crust is very much protracted, and exfoliation does not take place until the fifth or sixth week, leaving a cicatrix deep and corrugated, resembling the pock of variola. The local phenomena are greatly intensified and protracted; the general or constitutional symptoms are correspondingly intensified; rigors, fever, vomiting, diarrhœa, myalgia, cephalalgia, and even delirium, occasionally occurs.

It is only just to state that my subjects were all adult males who had been admitted to hospital for some malady or wound, mostly with typho-malarial fever or chronic diarrhœa, from which they were convalescing at the time of the operation; and the violence observed in both the local and general symptoms may have been, in some degree, owing to their physical condition; yet it must be remembered that the cases vaccinated with humanized lymph were similarly conditioned, and did not show any deviation from the normal course of vaccina; and as the same intensified phenomena has been observed by other vaccinators, it was probably due to the virus employed.

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I continued my vaccinations from this stock, and found the symptoms gradually approaching those arising from vaccinations with humanized lymph, as it became more and more remote from the heifer; and I have no doubt, had the vaccinations been long enough continued, the difference of symptoms would have become indistinguishable.

Dr. Brainwood, an ardent advocate for animal vaccination, visited, under the patronage of the British Government, the animal vaccine establishments at Paris, Brussels, Rotterdam, Berlin, Naples, Vienna, and St. Petersburg, for the purpose of investigating the subject of animal vaccination, and comparing its results with the mode instituted by Jenner. In his report, he sums up as follows:

"The transmission of cow-pox, from heifer to heifer, is accomplished without difficulty. Animals so used, receive no accident which can be legitimately referred to the operation.

"The transplantation of the same cow-pox has not appeared to influence the character of the vesicle.

"The progress of the eruption in the heifer is more rapid than in the human vaccine vesicle, and is affected by the health of the animal.

"Vaccination by incision has no advantages over vaccination by puncture, or by scratching.

"At a moderate expense, an establishment for animal vaccinations could be organized and maintained in large towns.

"The number of punctures that can be made are illimitable, and the quantity of lymph which such heifer can furnish is considerable, and in each instance is more than sufficient to meet the exigencies of the most extensive practice.

"Heifer lymph, like ordinary human lymph, often fails after being kept a certain time in tubes or squares.

"In this respect, humanized lymph has a certain advantage over heifer lymph."

From the above, the Doctor then claims the following advantages for animal lymph:

"That this source of vaccine lymph is free from all morbid or diathetic principles.

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"That spontaneous cow-pox by transmission only through the bovine race, retains all its essential qualities. Hence that vaccination from the heifer produces the true Jennerian vesicle."

In conclusion, he expresses his strong conviction of the superiority of heifer over humanized lymph, and in the degenerate character of the vaccine lymph in ordinary use. He says, "Moreover, accidents—some say diseases—follow vaccination, as commonly practiced; whereas no accident has yet been known to occur after the employment of heifer lymph. Farther, as is generally admitted, vaccination has been, in multitudes of instances, carelessly performed; such lymph, once deteriorated, is not consequently purified by passing through one human constitution, but remains, for ever, more or less defective in its true prophylactic nature. No means have been found to restore these potent qualities to ordinary lymph, or to remove the noxious principles in it, although many attempts, with this object in view, have been made."*

In comparing the relative merits of animal and humanized lymph, Dr. Steel, who is an ardent advocate for the latter, sums up as follows:

"Vaccination direct from the heifer, as a substitute for arm to arm vaccinations, is not necessary, for the following reasons:

"1st. Humanized vaccine lymph, when carefully selected and properly employed, by arm to arm vaccinations, is as certain and complete a protection against small-pox as it is possible to confer—equal, in fact, to the protection afforded by small-pox itself.

"2nd. Human vaccine lymph, when properly managed, does not degenerate, nor lose any of its prophylactic power, by a continued transit through successive subjects.

"3rd. It is no proof that the vaccine lymph, now in use,

---

* See paper read by P. M. Brainwood, M. D., at the meeting of the Liverpool Medical Institution, session 1869–70.

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has lost any of its original infective or protective power, to adduce the well-known fact that small-pox still appears among the population from time to time, and that much of the vaccination in this country [England]—as much as fifty per cent., according to Her Majesty's Inspectors—has been found to be ineffective, and of inferior quality.

"4th. The supply of humanized lymph afforded by the stations of the National Vaccine Establishment, is abundant, continuous, and sufficient to meet the requirements of the public.

"5th. Humanized lymph is safer, more certain in its effects, and in every respect more suitable for the purpose, than animal lymph."

Dr. Brainwood's conclusions may be accepted as the views entertained by the advocates of animal vaccination in England, while those of Dr. Steel represent the opinions of the supporters of arm to arm vaccination; and while, in the main, we agree with the latter, and believe that vaccine lymph does not necessarily deteriorate by successive transmissions through the human subject, we are constrained to adopt the opinion of the former, that from the want of exercising proper care in selecting subjects through which to continue the stock of vaccine lymph, much of the virus now in use is more or less deteriorated, and, consequently, unfit for use, and should be discarded; and we further believe that, in consequence of the difficulty experienced in affecting the human subject with heifer lymph, and the violence of the local and general symptoms that follow its successful use, it is not well adapted as a substitute for humanized lymph; but that it furnishes a reliable source from which a fresh stock of pure vaccine lymph can be procured, in case the stock of humanized lymph at any time becomes defective and untrustworthy.

Seaton, who has been an active supporter of arm to arm vaccination, recently communicated to the London *Medical Times and Gazette* of the 10th of February, 1872, a paper prepared by Dr. Bezeth, Director of the Animal Vaccine De-

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partment of Rotterdam, in which is found the following paragraph:

"It may be regarded as indifferent whether human individuals, to secure them against small-pox, be vaccinated either by humanized vaccine lymph, or by genuine regenerated lymph of cow-pox, or the retro-vaccinated vaccine virus."

[TO BE CONTINUED IN THE NEXT NUMBER.]

DARTROUS AFFECTIONS.—HERPES.

Read at a Meeting of the Knox County Medical Society, on the 3rd of May, 1872.

BY F. K. BAILEY, M. D., OF KNOXVILLE.

HERPES comes from the Greek word ἕρπειν, to creep. It is non-communicable, and seldom so severe as to cause much constitutional disturbance. Like many other forms of cutaneous disease, it is interesting to consider, as its mode of access is often a concomitant of other and more important abnormal appearances.

There are several varieties of herpes, and their designation is derived from the locality, or the arrangement of the clusters. Wilson ranks it under the designation of "Effusive inflammation of the derma." Eczema is included in the same family. There is inflammation of the true skin, succeeded by effusion of serum, which elevates the cuticle and constitutes vesicles.

Herpes phlyctenoides, as designated by writers, is, perhaps, not very common. It shows itself upon any part of the cutaneous surface. Where the disease appears in different

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parts of the body or limbs, as it sometimes does, it is preceded by considerable febrile disturbance, great heat of surface, with tingling or smarting. The eruption has no regular form or appearance. The vesicles vary in size in different regions, or in the same region. The period of continuance is from four days to a week, and the dried remains or scabs remain, sometimes, ten or twelve days, leaving spots discolored, which will not be effaced for weeks, in many cases.

The term *phlyctenoid* merely signifies a blister, boil, or pimple. I can see no reason for its use, unless it is intended to apply to vesicles or groups thereof, more deep-seated than other varieties.

The following is, perhaps, the most marked case of this affection that I have seen for many years:

January 9th, 1870.—Called to see a woman, aged about 30; light complexion and hair, blue eyes, nervo-lymphatic temperament, married; no children living; had one when but fourteen years old. Health has not been good for years. Was taken, about one week ago, with severe pain in the head and limbs, with chills and hot flashes. Four days since an eruption appeared on the face, neck, arms, and hands. Found face, neck, and arms, pretty well covered with vesicular eruption, and with all the characteristic appearances described as *herpes phlyctenoides*, with here and there clusters of the circinate variety, and one, very prominent, upon the left side of the neck. The pulse was frequent, tongue coated, with some irritation of the stomach and bowels. Feet and hands cold to the feel, and complaining of general uneasiness. Bowels open from salts taken last night.

℞—Spts. nit. dulc..... ℥ j.
Syr. ipecac ..... ℥ ss.
Syr. Scillar.....
Fluid ext. valerian ..... *āā* ℥ ij.—M.
Sig. ℥j. every four hours, alternated with 5 gr. pulv. dov.

January 20th.—Much the same. Continued treatment.

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January 21*st.*—Some more free from pain, with less fever. She says that the pain, from the first, has been deep seated, as if in the bones; no smarting or burning when the eruption first appeared. Bowels not open, tongue flabby; pulse soft, and 80; skin moist. The mixture had caused some nausea and profuse sweating.

℞—Leptandrin..... gr. v.
F. Pulv. No. 2.
Sig.—One every four hours, followed with C. oil. To avoid exposure to a current of air, and to take light diet.

This woman did not fully recover her strength for some weeks, and the skin remained discolored.

The next prominent variety is

HERPES ZOSTER.

I have seen cases of this at different times during the past thirty years. A distinctive peculiarity is its occurrence upon one half of the trunk (generally the left), extending from the mesial line in front to the mesial line posteriorly. The vesicles are generally larger than in any other variety, and occur singly rather than in clusters. There is a popular notion that if the eruption encircles the whole body, it will prove fatal. Wilson refers to the same idea, and remarks that Pliny also mentions it.

There is always acute fever, and deep-seated pain felt, as if piercing, through the body. If upon the chest, the pain is often excruciating.

One case which came under my care, some twenty or more years ago, was in a strong, well-built man, and his sufferings were extreme. Antiphlogistic treatment was called for, and some of the vesicles subsequently became deep pustules, conical in shape, with a thick brown eschar at the head. There were not more than six or eight vesicles in all, and they were upon the left side, near the nipple.

The last case I saw was in a negro boy of 14 years, who called at my office; he had three or four large vesicles, or bul-

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lae, upon the left side of the chest, and complained of the characteristic deep thoracic pain. My only prescription was a full dose of cathartic pills, and I saw no more of him.

In April, 1871, a young woman came to consult me in regard to an eruption, which appeared most prominent upon the fore-arms and neck, but to a less extent upon the back of the hands. It was herpetic in its character, but seemed to combine the phlyctenoid and

HERPES CIRCINATUS.

The vesicles were so thick upon the fore-arms and neck as to nearly cover the whole surface, and at different points the circinate appearances were very distinct. There was no constitutional disturbance, and but slight local uneasiness complained of. She had been treated previously for some uterine trouble, and, from her social relations, it was not at all rash to suspect a syphilitic taint. Accordingly, I prescribed iod. potass., with sarsaparilla freely, and a lotion of hyposulphite of soda and carbolic acid.

The eruption did not disappear in less than a month, and at the end of six months the marks of discoloration still remained. The last time I saw her she was complaining of soreness in the throat, and other symptoms, which confirmed my former opinion as to the specific character of the disease.

In the circinate group, besides *herpes zoster*, there are *herpes circinatus*, or vesicular ringworm, which is very common, and seen upon the face, perhaps, oftener than any other locality. Being a source of little or no inconvenience, the physician is not always consulted. The vesicles are not always disposed in a complete circle, but often crescentic, or irregular. If the patch of skin upon which the vesicles appear is highly inflamed, there will be severe tingling and smarting experienced —sufficient, sometimes, to cause general uneasiness.

There is also described,

HERPES IRIS,

which is very rare, and a curious affection. It is fully des-

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cribed in the works on cutaneous medicine, and "characterized by the eruption of vesicles, either singly or in small aggregated clusters, encircled by four or five rings, differing in shade of red, and supporting vesicles of great minuteness."—[*Wilson.*] It is said to cause but little constitutional disturbance, and generally limited to a few disks. I do not remember to have seen a case of this variety.

In the phlyctenoid group there are six varieties, according to Wilson, viz.: *labialis, nasalis, palpebralis, auricularis, preputialis,* and *pudendalis.* The names will indicate that they are thus designated because of locality.

HERPES LABIALIS

is the most common form met with, and is emphatically phlyctenoid in its character. To those familiar with autumnal fevers, this affection need but be mentioned. Particularly in the convalescence from periodic fever will be seen upon the lips of our patients more or less extensive vesicular eruptions, causing great inconvenience. It is generally considered a good indication, and but little attention is paid to it, except to apply some cooling wash. It is not uncommon, in sickly seasons, throughout the Northwest, to find a great proportion of the people with sore lips.

This variety is not confined to malarial districts, and in spring it is very common to meet with it after an attack of influenza or catarrh. During the past two months an epidemic catarrh has prevailed in this city, and "fever blisters," as termed in the vernacular, have been very common.

HERPES PREPUTIALIS

is sometimes a troublesome affection, and liable, under certain circumstances, to be mistaken for chancre. It is more annoying than the other varieties, because of the irritation caused by urine passing over the morbid surface. The disease is located upon the dermatoid as well as mucous surface of the prepuce, and, unless promptly attended to, will cause much distress.

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While writing this, I encountered a case in the person of a little boy of six or seven years. It was of some days' standing when brought to my notice, and there was a rim of vesicular patches upon the edge of the prepuce, and a spot of five lines in extent upon the glans. There was slight infiltration of the tissue, and a slight purulent discharge, similar to what is seen in inflammation of the eyelids. The child was just recovering from an attack of vernal remittent fever, and was still in a feeble and irritable condition. I prescribed a lotion of hyposulphite of soda, gr. x. to the ounce of water, with gr. v. carbolic acid.

In regard to the treatment of herpetic affections, no rule can be laid down, but frequently, if not generally, there is more or less impairment of the general health. In herpes zoster, I have always found febrile disturbance, coated tongue, torpid bowels, and severe pain extending through the trunk, at the point where the eruption made its appearance. The pain is generally described as severe and strongly neuralgic. Where there is much febrile excitement, the parts locally affected are extremely sensitive—or, to use a well-known expression, "as sore as a boil."

As expressed in former articles upon Skin Disease, it is my conclusion that herpes is a constitutional affection; or, in other words, the external manifestations are not the original departure from a normal condition, but a result of general derangement. The phenomena noticed in herpes labialis are sufficient to render this position conclusive. We find the sores upon the lips invariably vesicular in the outset, and presenting an uniform course during their progress. Our observation shows us that all cutaneous diseases, of whatever character, are preceded by more or less constitutional disturbance.

In the case of herpes phlyctenoides, mentioned in the beginning of this paper, the woman had felt the chilliness and general malaise experienced upon the accession of febrile affections generally, before the eruption made its appearance. This fact we find obvious in the history of exanthematous disease, that the constitutional symptoms make their appearance before it

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can be certainly known what particular effection is about to be developed.

In the *Practitioner* for October, 1871, and copied in the last number of *Braithwaite,* is a very interesting paper upon *Herpes Zoster Auricularis,* by Dr. F. E. Anstie. The writer gives a full and vivid description of the disease, as it occurred in his own person.

In August last he "began to suffer most acute pain in front of the tragus of the right ear, which came and went several times in the day, and which darted from the place where it commenced into the meatus auditorius and the maxillary joint, and ran up the side of the head."

In a week after, Mr. Hinton, while examining the ear, saw a very small pimple. This was considered as merely the effect of local applications, and the case treated as local neuralgia. Subsequently Dr. A. became convinced that the whole trouble had been herpetic in its nature. Vesicles made their appearance in the central folds of the pinna, and a group at the external edge of the cartilage. He says a draught of cold air upon the diseased surface would set up the old neuralgic pain for a moment. At the same time a small group of characteristic vesicles formed below the right angle of the mouth. Subsequently some vesicles made their appearance upon the neck, over the right sterno-mastoid.

On reading the article above alluded to, I have been reminded of many cases of common ear-ache, in which the pain complained of could not be accounted for from any visible amount of local inflammation, and that subsequently, there would be found abrasions of the lining of the external ear and meatus, which were distinctly herpetic in their character.

Otalgia is, perhaps, generally attributed to inflammation within the ear, and in many instances we all know it to be true; but still there are very many cases which can be relieved at once by dropping into the meatus some soothing mixture. We see, of late, frequent mention made of the good effects of carbolic acid in otalgia, and I have known some surprising results from a single application. The influence of carbolic

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acid, in the treatment of vesicular and other cutaneous affections, is becoming recognized as favorable, and its *modus operandi* in ear-ache may be its specific effect upon minute vesicles forming within the meatus, not only acting locally, but as an anæsthetic to the nerves of the part.

It is owing to the fact that many cutaneous eruptions are attended with pain more severe than would naturally result from so small an extent of tissue being inflamed, that has led nosologists to class some dermatoid diseases among the neuroses.

I take the liberty, in this connection, to quote a case reported by myself in the *Chicago Medical Examiner* for August, 1871, in which a herpetic spot made its appearance upon the forehead of a man who was suffering from a rheumatic attack in the muscles upon the right side of the neck. There was tumefaction of subcellular tissue in the right frontal region, and the herpetic affection appeared just above the right eye. There was great constitutional disturbance, and excruciating pain throughout the whole affected parts.

The case demanded prompt treatment, both local and constitutional. Upon the disappearance of the abnormal phenomena on the frontal region, recovery was rapid.

TURPENTINE IN PERITONITIS.

At a recent meeting of the Paris Hospital Medical Society, M. Vidal took occasion to call the attention of his colleagues to the great value of turpentine as an external application in partial and general, and even in puerperal peritonitis.

Trousseau, originally importing this remedy from England, employed it in large doses internally. In peritonitis, M. Vidal

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soaks a piece of flannel thoroughly in the turpentine, and having applied it over a large portion of the abdomen, covers it with gummed silk. It remains on until vesication is produced at several points, when the silk is removed in order to allow of the evaporation of the turpentine. Under this application he has, in many instances, seen patients, who were very far gone, rally completely, and recover.

M. Bourdon inquired whether this application of turpentine had been employed in any cases from the commencement, and whether leeches, cataplasms, &c., had been also resorted to. In this case the turpentine would have acted just like an ordinary blister, and it is well known that in advanced peritonitis, advantage is sometimes derived from resorting to blisters and Todd's mixture. He also suggested that the turpentine might act in the same way as the castor-oil collodion employed by M. R. Latour, by preventing transpiration and the contact of air. M. Vidal believes, however, that turpentine does not act in this way, but as an energetic and diffused revulsive, while at the same time it undergoes absorption by the skin and respiratory organs. At first he did not employ it so exclusively in peritonitis as he now does, as he then used to apply leeches also. Now he resorts, without hesitation, to the turpentine at once. He generally combines with it the application of ice, or what might be termed compression my means of ice, and under certain circumstances he would still use leeches.

M. Moutard-Martin, believing the action of the turpentine to be solely topical, asked whether comparative trials of it and of blisters had been made; but M. Vidal is convinced that it also acts internally. That it is speedily absorbed, is shown by the odor of the urine; while, soon after its application, the patients seem as if a cordial had been administered to them, and their cyanosed lips soon recover their color.—*London Medical Times and Gazette.*

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PUERPERAL CONVULSIONS.

VIEW OF TWO HUNDRED AND NINETY-SEVEN CASES.

A Paper read before the State Medical Society, April 2, 1872.

BY JOHN W. RICHARDSON, M. D., OF RUTHERFORD CO., TENN.

MR. PRESIDENT:—By appointment of the Society, I have the pleasure of presenting a paper on Puerperal Convulsions. Being anxious to collect a large number of cases, and from as many physicians as possible, I distributed about four hundred circulars, in addition to notices which were published in several medical journals. After all this labor, it will be seen, by reference to the Table, that I have only fifty-four contributors, and two hundred and ninety-seven cases reported. True, this is a large number—larger than I have seen in any other collection—yet much smaller than I had a right to expect. The cases are tabulated in groups, as by reports, finding that I could not, without an immense amount of labor, tabulate them individually.

To those, both in this State and out of it, who have contributed to my labors in preparing this paper, I return my most sincere and grateful thanks, with the promise that their drafts upon myself for similar services shall always be promptly honored.

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GENERAL VIEW OF 297 CASES OF PUERPERAL CONVULSIONS.

No. of Reports.	NAMES AND RESIDENCES OF REPORTERS.	Number of Cases.	Primips.	Multips.	Before Delivery.	After Delivery.	Premonitory Symptoms.	Condition before Confinement.	Condition between Convulsions.	Number Bled.	TREATMENT.	RESULT. Mothers Recovered.	Mothers Died.	Children Alive.	Children Dead.
1	Dr. Henry Hodge, Marion, Ky.....	3	2	1	2	2	Headache—Scanty urine—Faintings.	One plethoric. One anemic.	Somnolent and Comatose.	2	One bled to pint, one to quart. Chlorof. and camph. Active cathartics—Cold to head—Sinapis. to legs,—and bromide potassium.	2	1	...	...
2	Dr. G. W. Arnett, Larissa, Texas	1	1	...	1	...	Don't know	Good	.....	...	Chloroform—Cold to head—Sinapisms to extremities, and purgative enemas.	1	...	...	...
3	Dr. R. D. Bone, Larissa, Texas	1	1	...	1	...	Headache—Backache	Anemic. Anasarca.	Insensible	...	Chloroform to anæsthesia—Ergot to hasten delivery..	...	1	...	1
4	Dr. J. H. Wooldridge, Jamestown, Ga.....	1	...	1	...	1	Don't know	Good—Plethoric	Delirious	1	Immediately, 16 and 12 oz.—Cathartics—Enemas—Five drops Croton oil—no effect. Mustard to legs.	...	1	...	...
5	Dr. P. D. McCulloch, Trenton, Tenn.....	8	7	1	8	1	Strange feeling, Trembling, Double vision.	Albuminuria—Edema of In. Extremities.	Stertorous breathing.	8	Immediately, for effect—Chloroform in.—Chloral hydrate—Speedy delivery, by forceps, and turning.	7	1	5	3
6	Dr. W. J. W. Keer, Kossuth, Miss.....	1	1	...	1	...	Don't know	Don't know	Insensible	1	Immediately, 50 oz. Died undelivered.....	...	1	...	...
7	Dr. A. E. Hanna, Granberay, Texas.	1	1	...	1	1	Weak pulse—Nervous—Excitable.	Bad health.—Sick Stomach.	Great prostration of vital powers.	...	Mercurial cathartics—Quinine—Dov. pulv.....	1	...	...	...
8	Dr. A. B. Ewing, Franklin, Tenn.,.	9	7	2	6	3	Extreme sensibility—Incoherence.	Bad health.....	Comatose and Semi-comatose.	9	Immediately, one to three pounds. Aperients—Seldom anodynes—Glysters—C. cups and blisters.	9	...	...	...
9	Dr. Geo. Thompson, Gallatin, Tenn.....	10	10	...	3	7	Headache—Flushing.	Generally plethoric.	Insensible and Comatose.	10	Immediately, and copiously—Purgatives—Cold to head—Sinapisms to extremities—Chloroform in one case, after venesection.	10	...	...	10

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10	Dr. E. B. Boyd, Coldwater, Mo.....	2	2	...	2	1	Muscular twitching--headache	Plethoric.....	Unconscious	2	Pint and a half—one drachm elixir val. ammonia every thirty minutes—Chloroform inhalation, and frictions.	2	...	1	1
11	Dr. Ezra Michener, Toughkennamon, Pa..	25	18	7	23	2	Pain under sternum, strange sounds.	Plethoric--headache--ringing in the ears.	Comatose	23	Immediately and copiously—Purgatives—Uterine excitants—Opiates—Ice to head—Blisters to extremities.	21	4	9	17
12	Dr. Thos. Lipscomb, Shelbyville, Tenn....	7	3	4	5	2	Headache and blindness.	Generally plethoric, and full habit.	Unconscious and comatose.	7	Immediately and freely, again and again—Stimulating enemas—Laud. after vs., 60 to 100 drops—Cold to head—Speedy delivery—forceps when necessary.	5	2	5	2
13	Dr. B. W. Avent, Memphis, Tenn.....	12	9	3	...	...	None special	Generally good health.	Insensible	...	Bled in my early practice, not lately—Chloroform—Opium—Believe chloroform will prevent convulsions—Cold to head—Chloral hyd.—hasten delivery.	11	1	...	...
14	Dr. H. C. Moorehead, Pickensville, Ala.....	2	1	1	1	2	Muscular twitching.	Good health.....	Comatose	2	Moderately—Chloroform—Dov. pulv.—Calomel—Castor oil—Cold to head.	2	...	1	1
15	Dr. B. F. Duke, Sylvarina, Miss.....	1	1	...	1	1	Muscular twitching, face and extremities.	Good health—Insomnia.	Restless — Eyes fixed — Pupils contracted.	1	Immediately, 30 oz.—Ergot—Chloroform—Calomel—Castor oil—Sinapisms—Blisters—Tinct. Val.—Bro. Potas.—Quinine, Camphor, and Dover Pulv.	1	...	1	...
16	Dr. A. C. White, Spring Hill, Tenn....	2	1	1	2	1	Violent labor—Small pulse.	One good — one dropsical.	.....	...	Bromide Potassium, Morphia, Cold to head—One delivered with forceps. One had triplets.	1	1	...	...
17	Dr. L. C. Moreland, Tyner's Sta'n, Tenn.	4	3	1	2	2	Headache—Blindness—Deafness.	Plethoric—healthy.	Comatose	3	Heavily—Calomel, and Dov. Pulv.....	4	...	...	...
18	Dr. J. C. M. Rankin, Ashland, Tenn.....	5	4	1	5	...	Headache	Good health.....	Comatose	5	Immediately and freely—Active cathartics—Cold to head—Morphia in one case.	3	2	...	...
19	Dr. W. B. Moore, Brownsville, Tenn...	3	1	2	2	2	Restless and confused.	Headache—Pain in hips.	Unconscious	3	Largely — Cathartics — Chloroform inhalation—Morphia—Hyos., and Bromide Potass.	3	...	...	...
20	Dr. J. Hale, Owensboro', Ky.....	6	5	1	...	...	Headache—muscular twitching.	Two good—Three moderate One edematous.	Four comatose, two rational.	2	Freely—Cathartics—Chloroform inhalation—Morphia and Bro. Pot. freely—Delivery as soon as possible.	3	3	...	...
21	Dr. J. R. Buist, Nashville, Tenn.....	3	2	1	2	1	Blindness in one—others don't know.	Good in two—One nervous.	Unconscious	1	Small—Chlorof. In. in two—Hypo. inj. morphia—Cal. cathartic—Hot foot bath—Two delivered with forceps.	2	1	...	...
22	Dr. Thos. Rogers, Water Valley, Miss..	3	1	2	1	2	Headache—double vision.	Two plethoric—One edematous.	Comatose	3	After first fit, to syncope—Chloroform inhalation—Opium and camphor—Lobelia ad nauseam—Sinapisms to spine, arms, and legs.	3	...	...	...
23	Dr. J. D. Bass, Pittsburg, Texas.....	5	4	1	5	1	Headache—double vision.	Anemic——Anasarcous.	Insensible, and rapid pulse.	4	From 20 to 40 oz.—Active cathartics—Shaved scalp—Clay cap—Chloroform to anæsthesia—Val. Zinc.—Morph.—Mercury, and Dov. Pulp. to ptyalism.	5	...	4	1
24	Dr. J. G. Scarborough, Little Rock, Arks....	3	2	1	2	1	Muscular twitching in face and arms.	Headache—Good health.	Two easy — one wild.	2	Sixteen and twelve ounces—Chlorof. in.—Starch and Laud. enema—Opiates—Blister—Catheterism—Vs. and chlorof. did the work—No medicine in multip.	2	1	1	2

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GENERAL VIEW OF 297 CASES OF PUERPERAL CONVULSIONS.—CONTINUED.

No. of Reports.	NAMES AND RESIDENCES OF REPORTERS.	Number of Cases.	Primips.	Multips.	Before Delivery.	After Delivery.	Premonitory Symptoms.	Condition before Confinement.	Condition between Convulsions.	Number Bled.	TREATMENT.	RESULT. Mothers Recov'd.	Mothers Died.	Children Alive.	Children Dead.
25	Drs. Torry and Charlton Dukedom, Tenn.....	2	...	2	...	2	Eyes rolling to left — Spasms in arms.	One good — one weakly.	Headache, and comatose.	2	Immediately, 24 oz., and repeat. Calomel and Dover Pulv.—Cold to head—Tinct. v. v.—Bro. Pot.—Blistered head and neck in one.	2	...	...	...
26	Dr. R. Saunders, Paducah, Ky.....	13	11	2	...	...	Pain in top of head.	Ten plethoric—Two edematous.	Comatose—Partial sensibility	11	Freely—Croton oil — Enemas—V. vir. — Chloroform inhalation—Digitalis—Nit. Pot., and Opium.	10	3	8	5
27	Dr. J. W. Whitfield, Manlyville, Tenn.....	9	3	6	9	3	Headache in some.	Plethoric.....	Five comatose—Four delirious	9	Immediately, for effect—Gave all usual medicines—No confidence in anything except vs. and delivery.	9	...	4	5
28	Dr. Jno. Chester, Jackson, Tenn.....	7	4	3	5	2	Muscular twitching in some—None in others	Good in all.....	Comatose, and insensible.	5	Immediately and freely—Antispasmodics—Sedatives—Camphor and Laudanum—Etherized one, and delilivered with forceps.	6	1	...	...
29	Dr. Jno. F. King, Cameron, Mo.....	3	2	1	2	1	Blindness, and muscular twitching.	Some good—Some edematous.	Comatose	2	Immediately and profusely—Drastic purgatives and enemas—Counter irritants to occiput and extremities.	3	...	1	2
30	Dr. Wm. H. Richardson, Mt. Zion, W. Tenn..	2	1	1	...	2	Don't know	Good in one—Pains in one.	Comatose	...	Did not bleed on account of debility and feeble pulse—Cal., castor oil, morph., bro. pot.—Cold to head.	1	1	...	...
31	Dr. T. H. Roddy, Ooltawah, Tenn.....	12	8	4	...	...	Don't know	Some good—Some anemic.	Comatose	10	Immediately, 10 to 15 oz.—repeated, 6 to 9 oz.—Calomel and Ipc.—Enemas—Ether—Chlorof.—Cold to head—Sinapisms to extremities.	9	3	...	...
32	Dr. R. M. Corlew, Waverly, Tenn.....	1	1	...	1	...	Intense headache and delirium.	Plethoric — sick headache.	Comatose	1	Immediately, to ½ gal.—Cal. and Ipc.—Nit. Ether—Morphia—Cold to head—Sinapisms to extremities.	1	...	...	...
33	Dr. R. F. Evans, Shelbyville, Tenn...	5	3	2	3	2	Headache—Nervous, and Albumenuria.	Edema in three, Full's in head, others don't k.	Two comatose, 3 rational.	5	Immediately and freely, same to syncope—Gave some full anodynes—Bro. Pot.—Counter irritants, and such general treatment as seemed necessary.	4	1	...	5

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34	Dr. J. C. Loftin, Mariana, Arks.....	2	2	...	2	...	Restless, and spasms.	Good	One quiet—one etherized.	1	To 20 oz.—Morph. and Ether, and Chloroform to anæsthesia.	2	...	...	...
35	Dr. M. P. Harwood, Buford's Sta., Tenn.	1	...	1	1	1	Twitching of facial muscles Eyes distorted	Only moderate..	Comatose	1	Two pounds before delivery, and two after—Chlorof. inhalation—Opium—Stimulating purgt.—Enemas.	1	...	1	...
36	Dr. T. G. Shannon, Nolensville, Tenn...	4	3	1	3	1	Blindness and giddiness.	Three dropsical, One robust.	3 unconscious—1 conscious.	3	Two lightly, one freely—Cal. Cr. Tart. purgatives	3	1	...	...
37	Dr. J. H. Dickens, Readyville, Tenn.....	5	4	1	...	...	Fullness—flushing, and disturbed vision.	Good in four—One anemic.	Generally comatose.	4	Immediately, from 10 to 20 oz.—Gave but little medicine—Chloroform and Opium,—Delivery soon as possible.	4	1	...	...
38	Dr. A. A. Scott, Montg'y Co., Tenn..	5	1	4	4	1	Intense headache in four—Blindness in 1	Health good—Full habit—Costive.	Sensible—Nervous—Pulse frequent & feeble	...	Purgt. enemas—Sinapisms to extremities—Cold to head—Castor Oil—Blisters to scalp.	5	...	...	...
39	Dr. W. P. Moore, Sumner Co., Tenn..	5	2	3	...	...	Muscular twitching — Pain in the stomach.	Sedentary habit Costive.	Stupid and unconscious.	5	Immediately, from 16 to 20 oz.—Purgts.—Full doses of morphia—Ergot—Delivery—Two turned.	4	1	...	...
40	Dr. M. Ransom, Murfreesboro', Tenn.	5	3	2	...	...	Cases different..	Generally good..	Stupid	3	Freely, and repeated—Cathartics—Opiates—C. cups, and blisters.	5	...	...	...
41	Dr. J. T. Reeve, Appleton, Wis.....	2	2	...	1	1	Don't know	Generally good..	Stupid	2	One 34 oz., and one 48 oz.—Bro. pot., ammonia and valerian—Forceps in one case.	2	...	...	...
42	Dr. J. W. Davis, Smyrna, Tenn.....	4	...	2	2	...	Tedious labor—Drowsy—Easily alarmed.	One full habit—Others don't know.	Wildness and comatose.	1	To two pints—Chloroform chief reliance—Craniotomy, and forceps.	2	...	3	1
43	Dr. G. D. Crosthwait, Murfreesboro', Tenn.	3	3	...	...	...	Headache	.....	.....	...	Usual remedies [supposes]—Delivered soon as possible.	2	1	2	1
44	Dr. F. K. Bailey, Knoxville, Tenn.....	6	3	3	...	...	Headache, Mind wandering.	Not good in 3—Others don't remember.	Insensible	1	Immediately, to syncope—Chloroform—Hastened delivery.	1	5	...	...
45	Dr. Jerome Cochrane, Mobile, Ala.....	1	...	...	...	1	.....	Legs edematous	Unconscious—Pulse full.	...	Gave half-drachm doses tinct. v. v. every hour to six doses, first day—Second day, gave three half-drachm doses.	1	...	...	...
46	Dr. J. T. Gilmore, Mobile, Ala.....	30	30	...	...	...	.....	Some plethoric—Some anemic.	Generally unconscious.	...	Generally bled the plethoric—Gave opiates to the anemic—Bro. pot.—Chloral hydrate—Mercurial cathartics in all cases.	10	20	...	...
47	Dr. J. S. Poynor, Nashville, Tenn.....	2	2	...	2	...	Don't know	Health good.....	Some intellet. Blindness.	2	20 to 24 oz.—Purgts.—Chlorof. in. at approach of convulsion. In other case, Cro. oil—Bro. pot.—Cold to head—Convul's could not be anticipated by Chlo.	2	...	1	1
48	Dr. W. F. Landreth, Kenton Sta'n, Tenn.	1	1	...	...	1	Headache—Giddy—Sight and hearing dist'd	Health good, but costive.	Return of consciousness.	...	Bro. pot.—Chlor. h.—Morph.—repeated—Enemas—Cr. oil—Ice to head—Counter irritation to spine.	1	...	...	...

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GENERAL VIEW OF 297 CASES OF PUERPERAL CONVULSIONS.—CONTINUED.

No. of Reports.	NAMES AND RESIDENCES OF REPORTERS.	Number of Cases.	Primips.	Multips.	Before Delivery.	After Delivery.	Premonitory Symptoms.	Condition before Confinement.	Condition between Convulsions.	Number Died.	TREATMENT.	RESULT. Mothers Recov'd.	Mothers Died.	Children Alive.	Children Dead.
49	Dr. L. G. Armstrong, Boscobel, Wis.....	8	7	1	6	4	Headache—Shivering—Irregular pains.	Plethoric, Urine scanty—Albuminous.	Bewildered, and unconscious.	4	One 16 oz., two 40 oz., one 50 oz.—Morphia—Bromide Potass.—Chloroform—Aconite—Digitalis—Ergot—Purgts.—Early delivery—Forceps, and version.	6	2	4	5
50	Dr. Frank A. Ramsey, Knoxville, Tenn.....	20	17	3	...	...	Headache—Vision disturb'd	Some healthy—Albumenuria in some.	Stupor—Coma—Sleep.	20	Not largely, but rapidly—"in a gust,"—Chloroform, Opium, and Antimony, and such general remedies as circumstances suggested.	17	3	...	...
51	Dr. Wm. M. Clark, Nolensville, Tenn...	2	2	...	2	...	One don't know—Fright.	One good—One had spasms.	Comatose	1	Bled freely, purged, and convul. ceased—Labor came on in a week—Collapsed suddenly, and died. Dilated os u. in one, and delivered—Convul. ceased.	1	1	...	...
52	Dr. C. T. Love, Trenton, Tenn.....	8	7	1	8	...	Disturb'd vision—Headache—Ring in ears.	Œdematous	Some rational—Some comatose	5	From one to three pints—Morphia in full doses—Turpentine enemas—Cold to head. Chloroform is the great remedy—Delivery by forceps, and turning.	4	4	6	2
53	Dr. H. M. Hearn, Statesville, Tenn.....	3	3	...	3	...	Headache—Torpor—Lassitude—Heaviness.	.....	One heavy coma	3	Freely. Gave Br. Pot., and in one case F. E. Ergot. No relief from vs., nor anything else, until delivery. Two delivered with forceps—one, embryotomy.	2	1	1	2
54	Dr. Jno. W. Richardson, Rutherford Co., Tenn.	8	7	1	6	2	Headache, blindness, vomiting	Health good as usual — Two delicate.	Comatose, Incoherent, Insensible.	3	Immediately and freely—Opened bowels—Laud. and tinct. val.—Cut cups—Cold to head. Delivered one with forceps, one craniotomy, one undelivered.	6	2	3	5

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SUMMARY OF TABULAR STATEMENT.

No. Cases.	No. Primips.	No. Multips.	Had Fits before Delivery.	Had Fits after Delivery.	No. Bled.	RESULT.			
						MOTHERS.		CHILDREN.	
						Recovered.	Died.	Alive.	Dead.
297	219	75	135	57	193	224	71	61	72

It will be seen, on examination, that the Table is imperfect. This is the result of imperfect reports. Some had no notes of their cases, and could not answer all the interrogatories correctly; hence you will see, when certain numbers are added together, they do not make the required amount. Some of the reports say nothing about the children, and consequently the number of births cannot be calculated. Of the number reported, however, (133), it will be seen that more were born dead than alive.

The premonitory symptoms are very much alike; also the condition between the convulsions. There is also more uniformity in the treatment than could have been anticipated. It is interesting to compare the treatment in our Table with that in the Table of Dr. Robt. Lee, compiled thirty years ago.

Hyperæmia of the brain is still the predominant idea with the profession, as the cause of convulsions, and hence the lancet is freely used. Many, however, have almost entirely discarded the lancet as a means of arresting the convulsions, and are directing their attention to a different class of remedies.

By reference to Dr. Robt. Lee's *Lectures on Midwifery*, at St. George's Hospital, 1842–3, I find that "of 19 cases of convulsions reported by Dr. Joseph Clarke, 16 were in first labors. Of 48 related by Dr. Merryman, 36 were instances of first labor. Of 30 cases by Dr. Collins, 29 were in women with their first children; 14 of the 32 children (two of the women had twins) were born alive. In 18 of the 30 the convulsions sub-

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sided after delivery; 10 had fits both before and after delivery, and in two the attack did not come on until after delivery. In 15 of the 30, the patients were delivered by the natural efforts; in 6 delivery was effected by the forceps—in 8, by the perforator and crotchet, and in 1 by the feet. Two children were born putrid; five of the women died (one-sixth). In 6 of the 48 cases related by Dr. Merryman, the convulsions did not occur until after delivery. Five of these recovered; all the children were alive. In three cases the women had twins; in two of the cases the convulsions came on between the births of the two children. All were delivered with artificial assistance; two of them recovered, and three of the children were born alive. In eleven cases delivery was effected by the forceps; all these women recovered, and three of the children were born alive. In nine cases the perforator was employed. Seven of the women recovered. In four cases the operation of turning was resorted to; two of the women recovered—all the children were born dead. In one case the woman died undelivered. In fourteen cases the children were born without extraordinary assistance; ten of these women recovered, and five of the children were born alive. Thus, out of the 48 cases, 37 of the women recovered, and 11 died; 17 children were born alive, including the 6 born before the mothers had convulsions; 34 were born dead.

Dr. Ramsbotham relates 26 cases, of which 10 proved fatal; 13 occurred before delivery, 10 during labor, the rest after.

Dr. Ingleby relates 35 cases, of which 11 were fatal.

Mauriceau gives 42 cases—7 during pregnancy, 3 of which were fatal; 19 during labor, 11 of which were fatal; 16 after delivery, of which 5 were fatal.

Dr. Robt. Lee reports 54 cases, of which 18 died, and 36 recovered. Craniotomy was performed in 13 cases; forceps were used in 5 cases; and in two cases the children were delivered by turning. From his tabular statement I conclude that a majority of the cases were first labors, and that 24 children died.

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CAUSES OF PUERPERAL CONVULSIONS.

I propose to collect a sufficiency from such authorities as are in my reach to give a fair history of the causes of these convulsions, as written and taught by some of the most prominent obstetricians for the last forty years, commencing with Dr. W. P. Dewns. He says:

"From what I have seen of this formidable complaint, I am persuaded that there is no one cause constantly operating to produce puerperal convulsions, nor is there any one mode of cure applicable to all cases. To be successful in the management of this complaint, it is necessary that attention be paid to the species of this disease with which the woman may be attacked. I have therefore, from a conviction that they do not all depend upon one and the same cause, divided them into the epileptic, apoplectic, and hysterical, each of which may attach under two distinct conditions of the uterus, and requiring, from that circumstance, a difference of management."—(See *Dewees' System of Midwifery*, 1833, and the eight cases related by him.)

Mons. Columbat says the *causes* of eclampsia ought to be divided into predisponent and occasional. Among the number of the former, the puerperal state occupies the first rank. It should be stated, however, that the puerperal state does not constitute a predisposition, except when accompanied by other conditions that develop the predisposition in a still higher degree. The first in order of these conditions is, undoubtedly, the primiparous state; for, according to a statement made by Dr. Collins, there were seventy-five primiparous women in eighty-five cases of convulsions. He also mentions *inordinate* distention of the womb as a predisposing cause; also many other causes, such as the sanguine and lymphatic temperaments.

But the operation of predisposing causes does not necessarily produce convulsions, but occasional circumstances must supervene; among these he mentions the pains of labor, especially when at their summit, or when protracted to an inordinate

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length. The same of strong moral impressions, such as anger, vexation, and fright. He says he believes the determining cause of convulsions during pregnancy is a result of aggravated sympathetic reaction of the womb upon the nervous system. After delivery, convulsions may be produced by coagula, or pieces of the placenta remaining in the womb.—(See Meigs' edition of *Columbat*, 1845.)

Mons. Columbat's article on *Puerperal Convulsions* is one of the very best in print among the old authors. Prof. Meigs says: "M. Columbat coincides with everybody in the opinion that the brain, when examined after death, generally yields no pathological lesions to explain the violence of the disorder. We have a legitimate right, then, to infer that the disorder is one of extreme cerebral excitement from hyperæmia, and from sympathy of the brain with the irritated organs below."

Dr. Robt. Lee says: "Puerperal convulsions occur not only in plethoric, strong young women, in their first labors, but also in weak, irritable, nervous females. Sometimes the peculiar condition of the nervous system of the uterus appears to be the sole cause, and in all cases this is the principal predisposing cause. The condition of the brain on which the loss of consciousness and convulsions depends, is evidently produced by sympathy with the nervous system of the uterus. In some women, the fits are preceded by certain symptoms, indicating a plethoric state of the vessels of the brain, and great nervous irritability. There is usually headache, more or less intense, throbbing of the temporal arteries, sense of weight and constriction across the forehead, giddiness, drowsiness, the sight and hearing disturbed, flushing and tumefaction of the countenance, slight delirium or confusion of thought, a loss of memory, and other signs of cerebral disturbance. Pain in the epigastric region, and increased sensibility of the uterus, sometimes precede the fits; but there are cases of violent puerperal convulsions where no precursory or premonitory symptoms of any kind are perceived. In some cases there have been discovered morbid appearances in the brains of those who have died of puerperal convulsions, (see his Table,) while in others

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there has been no morbid appearance whatever found in the brain to account for the symptoms. At Edinburgh, in 1816, he examined, with Drs. Thompson and Gordon, the brain of a young woman who had died of puerperal convulsions, but, except a little turgescence of the blood vessels, and not more than is seen in many who have died of diseases altogether unconnected with the brain, there was nothing to account for the symptoms."

Dr. Ramsbotham made some *post mortem* examinations, in some of which he discovered turgescence of the vessels of the piamator, and extravasated blood was found in one case; but he concludes: "That the whole train of symptoms evinces considerable derangement in the functions of the brain and nervous system; yet after death, correspondent marks of organic mischief within the head are seldom met with. The different anatomical enquiries at which he had been present have not disclosed such regular appearances as to sanction the uniform deduction that the brain was the principal seat of the disease. He suspects that, in many instances, the brain is no otherwise implicated than through the medium of sympathetic irritation."

Dr. Merryman says, of the appearances after death contrary statements have been made.

Dr. Denman never saw effusion in the brain, but the vessels were turgid, and the heart unusually flaccid.

Mr. Hewson had informed him of one case in which there was effusion of a small quantity of blood.

Dr. Hooper saw one case where there was a large coagulum between the dura and piamater. He says that he has seen an effusion of blood in posterior part of cranium. And Dr. Ley had lately met with a similar case.

M. Cruveilhier examined a case in which not the slightest trace of congestion of the vessels of the brain could be detected.

Boutilleux relates another, in which he could detect no alteration within the skull.

Dr. Collins says: "We are quite ignorant of what the cause may be," and that he "could not find, on dissection, any ap-

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pearance to enable him to even hazard an opinion on the subject."

Nevertheless, up to the discoveries of Marshall Hall, "*determination* of blood to the brain," "direct or secondary cerebral congestion," were believed to be the grand cause of puerperal convulsions, by the highest and most popular authorities of the day, both of Europe and America.

[TO BE CONTINUED IN THE NEXT NUMBER.]

RUPTURE OF THE LIGAMENTUM-PATELLÆ AT ITS INSERTION.

BY CHALMERS DEADERICK, M. D., OF KNOXVILLE, TENN.

On the 22nd day of January, 1872, James ———, colored, about middle age, and by occupation a bricklayer, while in a stooping position, and sustaining the greater portion of the weight of his body upon the right leg, suddenly received the additional weight of a sporting associate upon his back. The tension upon the quadriceps extensor muscle, in attempting to resist the sudden strain, was so great as to rupture the ligamentum-patellæ at its insertion into the tibia, the patellæ itself remaining intact.

An hour after the accident occurred I was called to see the patient. I found him suffering considerable pain, the leg and thigh very much swollen, and the patellæ drawn up about three inches above its normal position. The attached portion of the ligamentum-patellæ could be distinctly felt, its free extremity being about three inches from the point of former insertion.

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I straightened the limb, and elevated it above the horizontal position, and, by means of steady tension upon the muscles of the thigh, was enabled to draw the patella back to its natural position. I fixed it there by means of adhesive strips, and covered the limb with the spiral reversed bandage.

I then, by repeated turns of a narrow bandage, formed a kind of collar, moderately tight, against the upper edge of the patellæ; applied a straight splint, with foot-piece, to the back side of the limb, and, by means of a band passed obliquely around splint and limb, just above the collar, bound the patella still more firmly to its normal position. The band was prevented from slipping on the splint by means of nails driven partly into the edge of the latter. The splint was then bound to the limb by means of a spiral bandage.

As the swelling diminished, the oblique and circular bands were tightened, and the patella kept in proper position. The limb was kept constantly elevated, and the appliances in position, for five successive weeks, at the end of which time adhesion between the tendon and tibia being firm, the appliances were removed, and the patient was able to bend and straighten the limb with ease. He is now walking about, and the probability is that the limb will soon be restored to its former strength and usefulness.

The above case is one of peculiar interest on account of its rarity, and for that reason I was induced to report it.

KNOXVILLE, TENN., MARCH 29, 1872.

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Selected.

THE "WOMAN QUESTION" IN ENGLAND.

The "woman question" is receiving attention from the General Medical Council of England. At a meeting held on the 4th of March, the proceedings of which are published in the *Medical Times and Gazette,* Dr. Acland offered the following resolution:

RESOLVED—That a committee be appointed to consider and report whether the General Medical Council has power to make rules for the special education of women, such as may entitle them to obtain a qualification to be certified by the Council. And that the committee do further report for what purpose such qualifications, if any, should be granted, what are the most desirable means for educating, examining, and certifying in respect of them, with especial reference to midwifery, the management of medical institutions, dispensing, and nursing.

Dr. Acland said he wished it to be distinctly understood that his motion had nothing to do with the question so much discussed of late, and which had been the source of a great deal of discomfort in Scotland—viz., whether or no women were entitled to be entered upon the Medical Register as ordinary Medical Practitioners. He avoided this by not using the words "Medical qualification." All that he asked was that a committee of inquiry should be appointed. Any one at all conversant with the condition of the poor, especially in great towns, or with the condition of the laboring poor in agricultural districts, knew perfectly well that there was a great want of well-trained women as nurses and midwives. Proof of such want was furnished by the fact that various institutions

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were endeavoring to supply it by furnishing women with certificates for various qualifications. The question, therefore, was (the want being admitted), was it the duty of the Medical Council to provide a licensed, and, therefore, a properly qualified, class of women for ministering to the sickness and sufferings of the poor? It was not necessary that the Council should examine such persons, but it would be desirable to have a general supervision of the institutions which granted the licenses or certificates to trained and experienced women. Something of the sort was in operation at St. Thomas's Hospital; and, whether the idea was good or bad, no possible harm could result from an inquiry. It was very certain that there was an increasing demand in all departments of work for the service of women, and they were doing their work remarkably well in the post-offices and other places. [Cheers.] Was it not fitting, therefore, that the Medical Council should exercise some control over the qualifications and certificates that were being given to women as nurses and midwives?

Dr. Stokes seconded the motion.

Sir Dominic Corrigan spoke strongly against it.

The Council adjourned at six o'clock, but the discussion was resumed the next day, when

Dr. Andrew Wood said when he first received notice of the motion, his impression was that Dr. Acland was anxious to bring into the Council some portion of the troubles by which Edinburgh had been vexed for the last three years; and he had some little hopes that it might act as a *diverticulum*, and quit Edinburgh of the matter to some extent. He was somewhat confirmed in this view, because he saw that the newspaper in Edinburgh which had all along advocated "woman's rights" opinions, had got hold of this motion in some way or other, and had inserted it with a chuckle. He had not the slightest doubt that the hearts of Miss Jex Blake and her compatriots were strongly agitated with hope that the question was being removed to a higher sphere than before. It was now a great relief, though it would be a monstrous disappointment to the ladies in Edinburgh, to find that the motion was

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really a much smaller affair; and now that it had been explained by Dr. Acland, he was utterly at a loss to understand why the Council had been called upon to interfere in the education of midwives. If the question had been the education of women, it would have been something worthy of Dr. Acland's lance, but for the Council to appoint a committee to draw up a curriculum of study and to endeavor to obtain a qualification for nurses, and midwives, and managers of medical institutions, even if it was within their power, would be unworthy of them. No doubt it was of great consequence that midwives should be properly trained, but who were the proper persons to give that training? Why, it was done in every maternity institution in the kingdom, and the question of training of nurses was drawing attention in many influential quarters. There were registers for midwives, and registers for nurses, but Dr. Acland ought to have thought twice before bringing a motion before the Council which sought to make an addition to the Medical Register for the benefit of nurses and midwives. The motion was completely *ultra vires*. The Council had no power to institute a new qualification; and even if they had the power, he doubted whether it would add to the dignity of the Profession, or be in their proper sphere to institute it. Let Dr. Acland apply the same energy to this great subject out of doors which he had shown in the Council, and he would be applying it in its proper place. No doubt great results might accrue, but the Council had quite enough to do in registering and taking charge of the Medical Practitioners of the country, without bothering themselves with women. [Laughter.] Woman now, as in former days, was the *teterrima causa bella*—[laughter]—and it would not add to the cause of peace to introduce the woman question into the Council.

After some further discussion, in which Dr. A. Smith, Dr. Acland, and Mr. Quain, participated, the motion was carried by a majority of one, eleven voting in its favor, and ten in the negative.

The following members were then proposed for the Com-

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mittee, and agreed to by the Council: Sir W. Gull, Dr. Quain, Mr. Quain, Dr. Stokes, Mr. Hargrave, Dr. Thomson, Dr. Macrobin, and Dr. Acland.

NITRITE OF AMYL IN EPILEPSY.

BY S. WEIR MITCHELL, M. D.

I have long desired to make use of nitrite of amyl at the outset of a case of epilepsy, but only of late have been so fortunate as to have charge of suitable cases. A case suited to make practicable the exhibition of this rapid agent should have some distinct aura or other form of warning symptom, and this must be of such a nature as to leave the patient long enough in possession of himself to enable him to employ the remedy.

A few weeks ago, a young farmer consulted me as to a peculiar form of epilepsy, which seemed most suitable for testing the value of various modes of cutting off the attack by interfering with the early symptoms.

J. C——, aged 23, was excessively prone to self-abuse, until, at the age of eighteen, he began to indulge, to an extravagant extent, in venery. At twenty he had a chancre, but thus far no secondary results. On the 4th of March, 1871, he became slightly intoxicated, went to a neighboring city, and for some days gave himself up to sexual excitements, to such an extent, as he describes it to me, as to show that either he had unusual virile power, or that he exaggerated his prowess. Be this as it may, there is no doubt that he ran into great excess, and that the punishment was distinctly born of the offence. On the 9th of March he felt feeble, but nevertheless had connection four times that night. On the 10th he had, twice,

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twitching of the left forefinger. On the 11th this grew worse, and on the 12th, after unusual sexual excesses, he had a prolonged spasm of the left arm. It began in the hand, and in a few minutes involved all the fingers in forced flexion. Then the wrist bent, and the flexed forearm was forcibly contracted. The attack, which surprised the patient but did not alarm him, ended with slight vertigo. A week went by without further trouble, when a series of complete epileptic fits began, always preceded by the local convulsion which I have described. The fits, which at first came on daily, soon lessened in number, and of late have recurred but once a week. On two occasions they have been sudden, and without warning, but in all other cases the hand has been affected with spasm, followed, in a few minutes, by vertigo, twisting of the head to the left side, left unilateral convulsion, and finally bilateral spasms, with occasional tongue or cheek-biting. The attack is followed by prolonged stupor.

Many remedies have been vainly employed, and even the bromides, in full doses, fail to do more than lessen the number of attacks; while strychnia, valerianate of quinia, zinc, and other agents, have all alike failed to afford relief.

I made many experiments with a view to cutting short the fit by interfering with the precedent local spasm; but neither blisters along the nerve-tracks which are not tender, nor a ligature tightly applied, proved of any use. I then gave the patient a drachm of chloroform in a phial, directing him how to inhale it from a handkerchief, but soon found that he was unable to inhale enough of it to serve his purpose. As a last resort I gave him, in a very small phial, three or four drops of nitrite of amyl, and showed him how to inhale it by putting the open phial up one nostril while with one finger he closed the other, and then made a few full inspirations. The first attempt failed, because, as he said, the spasm of the left limb made him nervous. On the second occasion he began to breathe it the instant the fingers twitched—having pulled the cork of the phial with his teeth. In a few moments he felt his face flush, the carotids beat violently, his head felt full,

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and, the spasm ceasing, the attack at once, and for the first time in his experience, was cut short. Four days later he thus cut short another attack; and the experiment has since succeeded in eleven fits, and failed, from too late use of the nitrite, in two. Moreover, the attacks have lessened in frequency, and now come on only once in ten to twenty days. Not only is there no evil effect from the drug, but his memory has improved, and his nutrition gained considerably. He is again taking bromide of lithium.

In a second instance of epilepsy, with aura proceeding from the right hand, the nitrite of amyl has been successfully used in two attacks; but commonly the cerebral phenomena in this, as in most cases, follow too soon to be of value—or, rather, too soon to allow of time for the nitrite to affect the intracranial circulation.

This must, unhappily, be the case in most epilepsies; but in all which have an aura, or local spasm, distant enough in time from the cerebral symptoms, it may be of value, and ought certainly to be employed.

I hesitate, as yet, to speculate on the relations between the physiological influence of this interesting agent and the present views of the mechanism of epilepsy; but I do not feel justified in withholding any knowledge, however limited be the foundation on which it rests, when it has proved so distinctly valuable.

In another class of rare cases it may also prove of service. There are certain epilepsies in which the spasms last for hours, one fit following another. In these I commonly employ, with success, injections under the skin of bromide of lithium, using thirty or forty grains in three or four localities; but I have twice checked these attacks at once by inhalations of the nitrite of amyl. In one of them there was a second fit, but no more—which was unusual. In the other, which lasts always several hours, I used the nitrite at the close of an hour, in the third convulsion. Relaxation instantly occurred; the fit passed off, and no other followed. Ether has been frequently employed in this case; but it merely mitigates the attack, and its

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use has to be kept up for hours.—*Philadelphia Medical Times*, April 15, 1872.

THE ACTION OF LARGE DOSES OF QUININE.

The *Lyon Médicale* for February has an article by Professor Binz, of Bonn, on the accidents which may result from the use of large doses of quinine. While advocating the use of single large doses, even as high as 15 to 20 grains, rather than repeated small doses, he calls attention to the unfavorable effects which may result in exceptional cases.

Deranged Action of the Nervous System and of the Heart.—These cases are of tolerably frequent occurrence. In one instance, in which three drachms were taken by mistake, there followed, in the course of an hour, pain in the head and stomach, vertigo, prostration, loss of consciousness, lividity of the lips, and coldness of the extremities. The pulse was slow and regular, and almost imperceptible, the respiration languid, and pupils widely dilated. Frictions and hot clothes, with stimulants internally, brought about reaction, and by the fifth day the patient was able to sit up. Sight and hearing were greatly impaired for a considerable time.

In animals poisoned with quinine, the heart is found dilated and insensible even to the stimulus of electricity. Thus it appears that while, in small doses, the drug acts as a cardiac stimulant, in large doses it tends directly to repress the action of the heart. This suggests caution in the use of large doses when the heart is enfeebled, or when additional labor is thrown upon it.

Impairment of Hearing.—The deafness produced by quinine generally subsides with the other symptoms of cinchonism, but in rare instances it persists for a considerable time, or may even be permanent. A patient having a congestive chill, took

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ninety grains during the succeeding intermission. Another chill following, the same doses were repeated. No other paroxysm occurred, but the patient was left perfectly deaf, and has remained so up to the time of writing, a period of ten years. In another case, in which the quantity given is not stated, the deafness continued three weeks.

Loss of Power of Speech is occasionally observed, but it is usually of short duration.

Disturbance of Vision.—Four cases are mentioned, in which complete amaurosis resulted from the daily use, for several days, of from 45 to 75 grains. In two of these cases the amaurosis continued only one day. In one case it persisted for a month.

Græfe gave 45 grains daily for a week, causing feebleness of vision in one eye, which continued for four months, when the patient was lost sight of.

In another case, in which about thirteen grains were given daily for a long period, there followed complete loss of sight in one eye, which was relieved after six weeks by local depletion.

In a few cases, *hemorrhage from mucous surfaces*, and an *erythematous* or *pruriginous eruption on the skin*, have been observed to follow the use of large doses.

Irritation of the Digestive Organs, so often observed, will, he thinks, be almost always avoided by giving the quinine in solution.

Albuminuria is occasionally produced when the kidneys are required to eliminate a large quantity of quinine. It ceases, however, when the medicine is suspended.

Vesical Catarrh has also been observed to follow under similar conditions.—*Medical Record.*

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Extracts from Home and Foreign Journals.

SURGICAL.

COLLATED BY PAUL F. EVE, M. D.

SIX CHILDREN AT ONE BIRTH.

The first authentic case we have ever heard of was reported last April, at the annual meeting of the Georgia State Medical Association, if we except the one recorded in the "Remarkable Cases in Surgery," 1857; but they all died the evening of the day of their birth. Dr. George N. Holmes reported that, twenty-eight years ago, in Kentucky, he delivered a poor white woman of six babes at one birth. The children were perfectly formed, and weighed each two and a half to three and a half pounds. The parents were originally from Maryland. They afterward moved to Arkansas, and he had heard that two of the children had died.

TEMPERATURE IN SERIOUS GUNSHOT WOUNDS.

These are the conclusions of an elaborate memoir, containing numerous observations, found in a recent number of the *Archives Générales:*

1. In severe wounds from fire-arms, the temperature is always reduced.

2. This reduction results from several causes, among which are nervous shock, excitement of combat and consecutive stupor, hemorrhage, finally alcoholism.

3. When a subject having a wound requiring an operation has a temperature below 35·5° C. he will die, and it is useless to operate.

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4. When reäction does not occur within four hours after the receipt of the injury, the reäction being in proportion to the prostration, the patient should be regarded as very seriously injured.

5. Burns produce remarkable reduction of temperature.

6. The same is true of penetrating wounds of the abdomen; and this reduction is so much more marked as the stomach is approached.

7. The diagnosis of penetrating wounds is easy, from the characteristic thermometric phenomena which they produce.

8. Intoxication strikingly favors the falling of the temperature.

9. Wounds from shells, other things being equal, cause a more marked reduction of temperature than wounds from balls.—*American Practitioner.*

IMPOTENCY.

Prof. D. Hayes Agnew, of Philadelphia, Pa. (*Medical and Surgical Reporter*), in a clinical lecture on impotency, after stating that the treatment must be largely moral, and urging the abandonment of onanism or excessive venery, says that there is no better internal treatment than phosphorus and strychnia—1-50 grain of the former, and 1-30 of the latter—made into a pill, and administered three times daily.—*Clinic.*

RETENTION OF URINE RELIEVED BY AIR.

Dr. P. A. O'Connell, late Medical Director of the Ninth Army Corps, U. S. Army, (*Lancet*, March 1, 1872), describes an expedient which he had recourse to after failing to pass a catheter, and which he has since found useful in other cases. "Having upon my office table an india-rubber hand-syringe, consisting simply of a rubber pouch or ball, with a hard rubber stem to it, that I generally used as a part of Politzer's apparatus for inflating the middle ear, it occurred to me that it might be made use of as an exhauster—a suction-instrument—and that by this means, perhaps, the stream of water could be started. Aeting upon this idea, I took a catheter of medium

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size, made a perforation in its extreme end, and passed it *down* to the stricture. Then, squeezing the rubber pouch so as to drive out the air, I connected it by means of a short piece of india rubber tubing with the catheter already in the urethra, and allowing it to expand gently—instructing the patient, at the same time, to make a gentle effort, *and only a gentle effort*, to pass his water,—I had the satisfaction of learning that the experiment had become a success, and that the man was relieved."—*Canada Lancet.*

THE USE OF ALCOHOL IN CHRONIC OTORRHŒA.

A. W. Calhoun, M. D., now of Berlin, Prussia, (*Georgia Medical Companion*), having been sceptical in regard to the beneficial use of pure undiluted alcohol for the cure of uncomplicated chronic otitis, or otorrhœa, as practised in the clinic of Dr. Weber, one of the editors of the *Monatschrift für Ohrenheilkunde*, writes that he has been enabled to follow a number of cases, as they progressed under this treatment, from the date of their first entrance into the clinic till their discharge as cured—and is now thoroughly satisfied of its efficacy, having seen cases of eight and ten years' standing, with destruction of membrana tympani, cured in a comparatively short time. The application of undiluted alcohol does not produce intense pain; for a few moments there is a smarting, slightly burning feeling, which gives place to a sensation described by patients as that of an "agreeable warmth." This latter lasts for a considerable time.—*Virginia Clinical Record.*

PREVENTION OF MUMPS.

Dr. Eldridge says he had invariably cured mumps, even when *orchitis* had taken place, with an emetic, in twelve, fourteen, or twenty-four hours. He never knew the emetic to fail. —*Detroit Review of Medicine and Surgery.*

REMOVAL OF POLYPUS FROM PHARYNX.

For the removal of a polypus from pharynx, at Guy's Hospital, a free incision was made, commencing just above the

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right ala nasi and continued downward through the lip. An incisor was extracted, and a large triangular piece of the superior maxilla was removed, in order to reach the tumor, which was attached to the base of the skull. The portion of bone was replaced, and held in its place by sutures; the wound was neatly closed, and scarcely any disfigurement of the face was perceptible.—*Medical Press and Circular.—Ibid.*

ANEURISM IN RELATION TO SYPHILIS.

Dr. Flint exhibited to the New York Pathological Society a specimen of aneurism of the abdominal aorta, remarking that "it was of no particular interest, except from the fact that it occurred in a patient who had syphilis." He also believed that this disease, as a cause, might explain many of the cases of aneurism in which none of the usual causes were made out. Dr. Loomis alluded to a long list of cases, published within the last two years in the *Lancet*, in which all under the age of forty gave a syphilitic history.—*Med. Record.—Ibid.*

CHINESE SURGERY.

John G. Keer, M. D., Chief Surgeon of the Canton Hospital, writes that the department of surgery in this empire can scarcely be said to exist, beyond the application of caustics and plasters to tumors and ulcers, and of poultices to broken bones. They are entirely helpless. There is no native doctor in all China who can give aid in any case of accident or disease which requires manual or instrumental interference. The inestimable benefits of operative surgery, in all its branches, are unknown to them. They are entirely without surgical instruments and all the apparatus which modern ingenuity has applied to the relief of injuries, deformities, and disease.—*Cincinnati Lancet and Observer.—Ibid.*

ARSENIC IN MULTIPLE LYMPHOMA.

Billroth reports (*Wien. Med. Wochsch.*, 1871, 14,) the case of a woman, aged forty, who had been in good health during her youth. The disease began ten months before her reception

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into the clinic, with enlargement of the glands of the neck; those of the axilla and groin soon followed. When the patient was received into the clinic, the tumors in the neck, on both sides, had reached the size of the fist; those of the axilla and groin formed swellings of the size of an apple; those at the elbow the size of a hen's egg; and the mesenteric glands seemed enlarged also. The spleen was double the normal size. Examination of the blood showed that no leucæmia was present. An experiment was at first made with quinine, commencing with twelve grammes, gradually increasing to twenty grammes, daily. As this treatment produced no effect, Billroth decided to employ arsenic, which so frequently causes the re-absorption of splenic enlargement in intermittent fever. A mixture of equal parts of Fowler's solution and water was given in doses of five drops, at first, gradually increasing, in the course of four weeks, to twenty drops, and then again returning gradually to the original dose. Two weeks after the commencement of this treatment there was already a marked diminution of all the tumors; and when, after two months, the patient was dismissed, there remained only a single gland, of the size of a hazel-nut, all the others having been entirely reduced.—*N. Y. Medical Journal.*

FIRST THREE CASES OF CÆSARIAN OPERATION.

Robert Harris, M. D., of Philadelphia, Pa., President of the Philadelphia Obstetrical Society, in a paper published in the *American Journal of Obstetrics*, on "The Cæsarian Operation in the United States," records the following:

Case I.—In 1769, a negress in Jamaica, who had previously borne three children without difficulty, performed the Cæsarian operation upon herself with a butcher-knife, making the incision on the left of the linea alba. The wound was dressed first by a midwife, and subsequently again by a surgeon, who removed the placenta through the incision, and washed the intestines free from dirt, which had gotten upon them by their falling out of the abdomen as she lay upon her left side. She

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was well enough to go to work in six weeks, and bore a child naturally a year or two afterwards. Violence of temper, and impatience, caused her to commit the act, which she would have repeated at her next labor, had she not been watched and prevented.—*New York Medical and Physical Journal*, 1823, vol. ii. p. 43.

Case II.—Nassau, New York, 1822.—A quadroon, fourteen years old, in labor with twins, operated secretly upon herself whilst lying upon a snow-drift, one fœtus escaping by the vagina, the other protruding through the incision, with a considerable portion of her intestines, from whence it was removed by Dr. Bassett, who was called to her assistance. The abdominal incision was made with a razor, and in the form of an L, the angle being slightly obtuse, and the uterus cut obliquely through its fundus. The abdomen was emptied of a considerable quantity of blood, the wound dressed, and the girl recovered without a bad symptom. As she had buried one child in the snow, and no mention is made of the other being alive, it is to be presumed they both perished.—*N. Y. Medical and Physical Journal*, 1823, vol. ii. p. 40.

Case III.—Newton, Ohio, April 23*rd*, 1827. Dr. John L. Richmond, operator.—Miss E. C——, a large fat woman, under care of two midwives, (in an open log cabin, then on the frontier of civilization,) for thirty hours, and affected with eclampsia. No os uteri could be felt, as the anterior wall of the vagina appeared to cover the cervix, and form an acute angle with the posterior wall in the hollow of the sacrum. After attempting, in vain, for hours, to check the convulsions, and ascertain the presentation of the child, Dr. Richmond, without any assistance, and by means of the instruments in his pocket-case, performed gastro-hysterotomy, cutting through the placenta in so doing. Not being able to turn the child, which was a very large one, and presented its back to the incision, with its head in the pelvis, he cut it across the loins so as to double it up, and extracted it. No communication with the vagina could be found from within the os uteri. The ab-

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dominal wound was left open, for two inches at its lower end, until the seventh day, that the lochial discharge might escape, when it was closed, but was again opened on the twelfth day, for the discharge of accumulated offensive sanious matter, and kept open six days longer, being syringed out each day through a catheter, with a pint of warm soap-water. The woman never had any pain, commenced work in twenty days, and in the fifth week walked a mile and back on the same day.—*Western Journal of Medical and Physical Sciences*, 1830, volume iii. page 485.

EXCISION OF THE UVULA.

Twenty years ago, the late Mr. Yearsley published the following remarks:

Excision of the Uvula.—In order to gain all the advantages, and ensure no disadvantage, from this operation, it is necessary that *the whole* of the uvula should be removed, and not part only, as has been the usual practice. It is owing to this partial removal that patients have occasionally been sadly inconvenienced by the irritation kept up by the food in its passage through the isthmus striking against the amputated surface. In consequence of such result, Dr. Bennati, a talented physician of Paris, who, some years ago, used to amputate the extremity of the uvula in singers, discontinued the practice. In the numerous cases in which I have performed total excision, I have never seen such a result. It may, therefore, be set down as an axiom that *shortening* or *snipping* the uvula, is a most objectionable operation; whereas its entire removal, by which the palatine arches are thrown into one, is an operation which, in suitable cases, is to be commended. The utmost pains have been taken to ascertain the results of loss of the uvula; but in no one case can I find that the slightest inconvenience has arisen from its removal. The fact that the removal of the uvula involves no subsequent inconvenience to the patient is, of itself, of the greatest interest, both in a physiological and a practical point of view.

Notwithstanding this sound advice, there still remain many members of the profession who practise snipping, or partial removal, to the detriment of both patient and practitioner, and with the result of causing the public strongly to oppose operative interference. I have lately met with numerous cases in which patients have submitted to what was styled removal of the uvula, proving, however, but a *partial* removal. The

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consequence has been, that the raw surface has remained dangling, irritated by every morsel of food that passed down the throat; and in some cases inflammation has arisen, spreading to the throat and larynx; weeks of suffering have occasionally followed, terminating, generally, by leaving the uvula as long as it was before the operation.

* * * * *

All the cases in which I have removed the uvula have resulted satisfactorily; and I have experienced the good fortune of not having had any in which the bleeding has not been almost immediately stopped by cold-water gargle. In one case, the patient had an enormously enlarged uvula, half an inch in thickness, and extremely vascular. I feared that the removal might possibly cause some troublesome bleeding, so I had in readiness some of the strong liquor ferri perchloridi with which to touch the wound; but I found its use quite unnecessary, as the hemorrhage stopped in a very few moments. If in any case iron failed, I should apply a wire-ligature, which could be very easily done with an instrument that I have had made for excising very vascular uvulas, a description of which I hope to give upon some future occasion.—E. NOBLE SMITH, in the *Medical World.*

COMPRESSION OF THE UTERUS FOR EXPULSION OF THE PLACENTA.

Compression of the uterus in expulsion of the placenta, has been treated of at length by Prof. Crede, of Leipzic, and more recently by Dr. Chantreuil, of Paris. The latter has tried it in five hundred and forty cases, with the result of expediting very much the delivery of the after-birth, and favoring an early return of the uterus to its normal size. When the uterus has reached the maximum of its contraction after the expulsion of the infant, it is to be grasped between the palms of the hand placed in front and behind it,* and steady pressure maintained. The result, in the majority of cases, is, that the

* Pray, how is the hand put behind the uterus?—ED.

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delivery of the placenta is accomplished in a much shorter time than is usual, without being followed by hemorrhage or other unfavorable symptoms.—*Medical Record.*—*Medical World.*

MEDICAL.

BY W. L. NICHOL, M. D.

ON THE USE OF THE PULVIS GLYCYRRHIZÆ COMPOSITUS, A LAXATIVE PREPARATION OF THE PRUSSIAN PHARMACOPŒIA.

Dr. David Page, in a communication to the May number of the *Practitioner*, says: The want of a mild, but effective aperient, of convenient form, and without any of the disagreeable concomitants of most preparations of this class, frequently confronts the physician when he casts about him to meet a case of simple constipation with what he cannot readily discover, a pleasant remedy.

About two years ago I first became acquainted with the compound liquorice powder through Dr. J. Warburton Begbie, and since then I have, I may say, daily tested its efficacy as an excellent laxative medicine.

The majority of cases of constipation arise from simple or functional derangement, and perhaps in all of these a loss of power or atony of the colon is the faulty source.

In the aged, this condition is properly coincident with the gradual cessation of activity generally in the bodily functions; but in the young, more avoidable or accidental causes are at work, such as sedentary habits, irregularity, debility from other illnesses, and the like.

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For the treatment of simple constipation, resulting from atony of the bowel, the compound liquorice powder is admirably adapted. Whether in simple uncomplicated torpor of the intestines, or in constipation accompanying temporary gastric disorder, the powder, alone, or auxiliary to appropriate remedies, is preferable to other preparations of its class. In the former, our object is rather to call into play the peristaltic action of the intestine than to deplete, by serous transudation from its walls, and, in the latter especially, no prudent practitioner would run the risk of aggravating the disordered stomach by the exhibition of purgatives possessed of irritant or drastic properties. The compound liquorice powder is composed of the following constituents, so prepared as to form, when incorporated, an almost impalpable powder:

Senna leaves	℥ vj.
Liquorice root..	℥ vj.
Fennel seeds	℥ iij.
Sulphur	℥ iij.
Refined sugar	℥ xviij.*

The active ingredients are sulphur and senna. The action of the former, when administered alone, is frequently accompanied by tormina, and the continued use is apt to cause derangement of the mucous membrane of the upper intestine. The physiological action of sulphur appears to be upon the muscular coat, and less upon the mucous surface, while senna is a more active purgative, more apt to excite tormina, and acts more upon the mucous than the muscular coat. By the aromatic and stimulant properties of the fennel, and the demulcent action of the liquorice, itself a mild laxative, the effects of the more active constituents are judiciously modified.

The usual dose is a small teaspoonful at bed-time, in water, with which it is easily mixable, forming an agreeable draught. Children readily take it, with the belief that it is a sweetmeat.

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* This formula is given in the Pharmacopœia Borussica.

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THE SYPHILIS-CORPUSCLES OF LOSTORFER.

We are informed that the committee of accomplished microscopists appointed from the Boston Society for Medical Observation to investigate the subject of syphilis-corpuscles in the blood have reported, as the unanimous result of their individual and independent researches, that their conclusions are negative; that the bodies described by Lostorfer as peculiar to syphilitic blood were found in the blood of syphilitic patients and of healthy persons as well; and that the so-called corpuscles appear to have their origin in certain physical or chemical changes to which the blood globules are subjected in the course of prolonged microscopic examination.—*Medical and Surgical Journal.*

ON THE USE OF CARBONATE OF LITHIA IN GOUT AND URIC ACID GRAVEL.

BY PROFESSOR DITTERICH, OF MUNICH.

Carbonate of lithia, according to Professor Ditterich, must always be considered as the most powerful remedy in gout and the morbid conditions depending upon excess of uric acid, and the salt has fallen somewhat into disrepute of late only in consequence of being unsuitably administered. The doses of from five to ten grains, recommended by Aschenbrenner, generally produce very unpleasant symptoms, as dyspepsia, catarrh of the stomach and bowels, with vomiting, &c., which require the discontinuance of the remedy.

These doses, according to Professor Ditterich, are much too large to act beneficially, and the single dose should never exceed twelve centigrammes (a centigramme is the hundredth part of a gramme, which is about fifteen grains), and in twenty-four hours not more than a gramme should be given altogether.

The next question to be asked in the treatment of gout is whether the case presents itself in the acute or chronic form—for in the former lithia is unsuitable, but in the latter the carbonate may be given in the proportion of half a gramme

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(about seven and a half grains) in a hundred and fifty grammes of distilled water, one or two teaspoonfuls to be taken every two hours. Thus administered, the lithia causes no inconvenience, and generally affords relief in from eight to fifteen days, during which the painful parts are covered with socks or linen coverings. According to Professor Ditterich, the gouty swellings which have become hardened are not affected by the lithia circulating in the blood, until the adjacent parts of the limb have been brought into a state of congestion by stimulating embrocations.—*Schmidt's Jahrbücher der Gesammten Medicin*, October, 1871, and *Med.-Chir. Review*, April, 1872.—*London Practitioner* (Balt. Rep.)

PREVENTION OF MAMMARY ABSCESS.

W. R. G. Samuel, in a communication to the *Lancet*, commending the use of olive oil as a local application to prevent mammary abscess, says—

"The mode I usually employ is to cut a piece of lint the size of each breast, allowing it to come well under the axilla, leaving a hole for the nipple to pass through for the infant to suck. Before applying the lint, saturate it well with the best olive oil, and envelope the breast; next cut a piece of oiled-silk the shape and size of the lint, and cover this over the breast so as to prevent the oil from soiling the linen. In all cases let this be applied not later than the second day after the *accouchement*. As the lint becomes dry, moisten with more oil. Let this be applied until the patient is able to get about. I have tried it in many cases, several of which were primipara, and in no single instance has it failed. Besides, it not only prevents the obstruction of the milk-ducts, by its heating and emollient properties stimulating the capillaries around the base of the gland, but it also causes the milk to flow from the excretory ducts involuntarily (tubuli lactiferi), or, what is better understood in the phraseology of nurses and midwives, by causing the breasts to run. I am of opinion that if the oil is properly applied, and at the proper time, there no longer remains cause to fear the formation of mammary abscess."

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BLEEDING IN PNEUMONIA.

When a medical man has to combat this affection, he either confines himself to expectation, or gives large doses of brandy, or takes blood from the arm, according to the school to which he belongs. Of course some regard is to be paid to the particular patient, and to the nature of the prevailing epidemic tendencies; but it still remains very melancholy that such enormous diversity should exist—a diversity which, to a lay observer, would look quite monstrous. However this may be, we think it right to refer to the essay of Dr. Simorre, practising in a country place of France, inserted in the *Tribune Med.* of Paris, January 14th, 1872. Here a series of cases are related, wherein the patients were bled copiously at the very outset, again in four hours, lesser quantities of blood being taken at longer intervals two or three times afterwards. No other treatment than demulcent drinks. All the patients recovered.—*London Lancet.*

THE FORCE OF UTERINE CONTRACTION.

The extreme force of uterine contraction produces a pressure of 3,402 pounds per square inch, which is equivalent to a pressure of 54,106 pounds acting upon a circle of nine and a half inches in diameter, which is assumed as the average area of the pelvic canal. The maximum force used to expel the fœtus, by both uterine and abdominal muscles combined, is estimated by Soulin, by forceps experiments made on a dead body, at 110.23 pounds, a result which is regarded by Dr. Duncan as too large. Dr. Duncan considers 80 pounds as the maximum force ever employed in difficult cases. This would correspond with a hydrostatical pressure inside the uterus of 5.05 pounds per square inch, which is greater than the uterine muscles, unaided, are capable of producing.—*Dublin Quarterly Journal Medical Sciences.—Boston Medical and Surgical Journal.*

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MURIATE OF AMMONIA IN BRONCHITIS, CATARRHAL PNEUMONIA, ETC.

In obstinate acute bronchitis, after the first intense stage, in catarrhal pneumonia, both of children and adults, in bronchorrhœa, and also in ordinary chronic bronchitis, the learned editor of *New Remedies* says he has obtained more apparent good from the muriate of ammonia than any other remedy. Of course, other secondary measures are to be vigorously used —counter irritants, poultices, support or diminution of food supply, &c. &c., as the case may call for. The best formula for giving the muriate is as follows:

℞—Ammonia muriat..... ʒ ij.
Extr. glycyrrhiz..... ʒ j.
Mucil. acaciæ, aqua ..... āā f ʒ iij.—M.
S.—Tablespoonful for an adult every two hours,—teaspoonful for a child a year old, every three hours.

Sometimes, however, the patients object to the mixture of sweet and salt, preferring the following:

℞—Ammonia muriat..... ʒ ij.
Aqua..... f ʒ vi.
Dose as before.

Where the cough is very annoying, 1-20th of a grain of sulphate of morphia, or 10 to 15 minims of tincture of hyoscyamus, may be added to each dose.

In bronchorrhœa, the following may at the same time be used by inhalation, twice or thrice daily:

Sat. solution of alum..... ʒ vj.
Tincture hyoscyamus..... ʒ ss.—M.

Medical Press and Circular.

DIGESTION OF CALOMEL.

In his recent lecture on "Diet and Medicine," Dr. Symes Thompson showed that some drugs undergo a process of solution within the body, analogous to that which food passes

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through under the influence of the digestive juices. With the assistance of Professor Heaton he demonstrated Tuson's experiment on calomel. In one vessel (*a*) calomel and hydrochloric acid were placed, and in another (*b*) calomel, acid, and pepsine. After digestion for two or three hours, at the temperature of the blood (care being taken that the heat should not rise above 140° Fahr.), the contents of both vessels were thrown on filters. The filtered liquid from the second (*b*) gave a black precipitate with sulphuretted hydrogen, showing that pepsine had rendered the calomel soluble, while the liquid from the first (*a*) was unaffected by the gas. This experiment has served to remove much of the difficulty previously felt of accounting for the effect of a salt insoluble in acid, and is of value as showing why calomel does not produce its characteristic effects in cholera and other conditions in which the digestive powers are in abeyance, or when the active ingredients of the gastric juice are wanting.—*Ibid.*

THE ASPIRATOR RELIEVES RETENTION OF URINE—MAY SUPERSEDE THE LANCET.

M. Labbé, a young Surgeon and *agrégé* (sub-professor), has been doing wonders with the capillary or aspiratory trocar—the instrument patented by Dieulafoy, of Paris. M. Labbé informed me, while on a visit to the *Hôpital la Pitié*, that he had, the previous evening, punctured the bladder above the pubis of an elderly gentleman who was suffering from retention of urine, resulting from an enlarged prostate. This was done with the above-named instrument, and 700 grammes (about 22 ounces) of urine were drawn off at one sitting. Several ineffectual attempts had been made to introduce a catheter, which ended in making a false passage towards the rectum. M. Labbé prefers Dieulafoy's trocar to the other methods in vogue, as being perfectly innocuous, the wound healing immediately. He had performed the same operation several times—both in his nosocomical and private practice, and intends submitting his observations to the Academy of Medicine.

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A very interesting thesis has been written on the subject by Dr. J. Watelet.

In the case under notice, M. Labbé was to relieve the bladder in this way once or twice in the twenty-four hours, according to the urgency of the symptoms; and that he will repeat daily until the wound in the urethra is healed, when he will resort to other means for the removal of the cause of the retention of urine. I may here observe that many surgeons already predict one great disadvantage in this new method—not to the patients, but to the new generation of surgeons—as catheterism, which even now-a-days is so little confided to students, would run the risk of being altogether put aside.

This capillary or aspiratory trocar, intended at first only as an exploring instrument, was not much larger than an ordinary urethra-syringe. This was gradually increased in size, and was then employed for emptying large abscesses and cavities containing liquid.

M. Collin, successor to Charrière, has still further improved the instrument, in such a way that it may be used not only for emptying abscesses and cavities, but for washing out or injecting these, and it is of a size containing from 120 to 160 grammes, that these operations may be performed without deranging the instrument.

This new trocar is, I think, destined to render great service both in Medicine and Surgery; and it struck me that it would be preferable to the ordinary lancet in venesection, as the risk of air entering the vein is *nil*, in which case the needles would of course have to be made a little thicker, so as to have a good and uninterrupted flow, and the ligature above the elbow may be dispensed with.—*Paris Correspondence London Medical Times and Gazette*, April 23, 1872.

KRAUS AND HERMANN, OF VIENNA, ON SYPHILIS.

Dr. C. R. Drysdale, writing to the *Medical Press and Circular* of April 3, says:

The Vienna school is at present much occupied in the discussion of the nature and treatment of syphilis. Dr. Kraus,

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editor of the *Wien. Allgem. Medic. Zeitung*, in the issue of the 5th of March, observes that he believes that a newly-born syphilitic child may infect its own mother, and that he thinks all such infants should be brought up by hand, and not given to any nurse. Great cleanliness is requisite in treating these children. Local treatment of the syphilides about the mouth, arms, etc., consists in touching them with a caustic of some kind. Calomel is, in Dr. Kraus' opinion, undoubtedly the best remedy for syphilitic children. Corrosive sublimate and iodine are bad. Only in very uncommon cases, when diarrhœa or vomiting exists, is the use of mercurial ointment of service; 0.30 gramme is then to be rubbed in in various parts. Calomel is to be given in doses of one-fifth of a grain four or five times a day for a fortnight, and then lactate of iron in small doses. Dr. Hermann, of the Weiden Hospital, in the same journal of the 27th of February, says: "I could fill a volume with all the ways and means taken by opponents of my experiments." These gentlemen used every means in their power to put a stop to his non-mercurial treatment of syphilis in the Weiden Hospital. That such attempts have not succeeded, he attributes to the fact that in the syphilitic section of the hospital, the time taken for the cure of the disease is one-third shorter than in the other hospitals of Vienna, and that this division of the hospital has given a lesson to all who care for evidence against mercury, by its 25,000 cases which have been successfully treated there.—*Medical Record.*

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Editorials, Reviews, Etc.

THE BATTLE OF LIFE,

with us all, is a hardly contested field, for Brown, of Brunonian celebrity, never uttered a greater truth than that by which he intended to convey a very different meaning when he said, "*Life is a forced state.*" We all, sooner or later, awake to the necessity of sleepless vigilance, if we have sworn in the heart to be true to ourselves, and false to none. If we are born with a silver spoon in the mouth, it requires an unintermitting struggle, not to say a locked-jaw, to keep it there—for, like a pig with an ear of corn in his mouth, turn whichever way he may, in the selfish endeavor to appropriate it to his own gratification, other pigs meet him at every turn, eager to snatch the coveted prize; and if born to poverty, the effort is unceasing to get a silver spoon in the mouth, and to hold it there; but no true man will attempt, like the hog, to filch it from the mouth of another, for he feels that, notwithstanding poverty, and a' that, and a' that,

"A man 's a man for a' that."

The boy is the father of the man, and cannot, therefore, be too industrious in gathering and appropriating these great moral truths, which underlie all true greatness, that his child, sending down his roots deep amid them, may wax strong in the nutriment they will afford, so that in the meridian of manhood he may stand among men whose united voices will assist nature in proclaiming him a man.

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Among these great moral truths crop out, preëminently, RELIABILITY, the capsheaf of honor, truth, *unselfishness*, and integrity. The boy, father of the coming man, to whose sheaf the sheaves of other men are to bow, must eschew all cross-cuts and by-ways—must offer his back willingly to the burden meted to other boys; for if he would throw so much as a feather's weight upon his neighbor, to lighten his own, the leaven of corruption has entered his soul, and will surely work out trouble for the man that is to be. To be a man, he must be a boy! If, as a boy, he shirks his duty, throws upon others what should press his own back, shields himself from the pitiless storm with another's blanket, whines for the lion's share, creeps under the circus-tent, and puts a button in a blind man's hat, what are you to hope for his son, the man?

Take an example—Dr. Livingstone. We all know what the man is, what a boon he has been to science, to his generation, and to mankind. A poor little boy, with his yellow legs wading in the Clyne, offering his baited pin-hook to the silly minnow. The struggle of his parents is to make both ends meet. At ten years of age he is a factory boy, that his wages may help to support him, but is permitted to control a part of them. His part of his first week's wages he devoted to the purchase of Ruddiman's *Rudiments of Latin*, by aid of which and an evening school (after the day's labor, from eight to ten), he became, in a few years, a superior Latin scholar. All this time he toiled in the factory from six in the morning till eight in the evening—fourteen hours a day! The classical authors were as familiar to this poor over-worked boy of fourteen years of age as to any boy at Oxford or Cambridge. He devoured every book he could get his hands on. Of course such a boy was obliged to be a Christian. He read as he worked—placing his book on some portion of the spinning-jenny, he would catch a sentence as he passed at his work, and re-passing, catch another, until the book gradually melted away from title-page to finis. Then medical books fell in his way, and he devoured *them*, while with his earnings he attended the Greek and Medical classes in Glasgow, near the factory,

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in winter, while in summer he sought instruction in theology by attending divinity lectures, "by working with my hands," he tells us. God bless him!

Finally he graduates. Writing his thesis on physical diagnosis, he begs to differ from one of his examiners concerning the diagnostic power of the microscope, and gets pretty roughly handled: but he was used to that. He had paid teachers—Latin and Greek and Medical and Theological, the last cent for his instruction, and as much as the richest class-mate paid them, and by "working with his hands."

Now, when letters come to us, saying, "I can pay my board, but can pay nothing for lectures," and "I am offered this by going to" (so and so), "but I like your school," &c. &c., we can but wonder if this boy is to be the father of a Livingstone! One writes to a friend of ours, who is in a $140.00 school, saying that he got his lectures free last year, at a certain Congressional place, and could again, but wants to graduate at the school our friend is in. This enterprising young gentleman is not at all mealy-mouthed, but means business in every line of a letter of good penmanship. "I want to know," he says, "whether you will let me attend the session of 1872–3, at your school, free of the professor tickets. There is no use in offering me time, for I had to borrow the funds to pay my traveling expenses, board, and books, for the last session, and will have to do the same next session." He could borrow money to pay for what it was impossible to beg, or get credit for, but is dead bent to beg where hope offers the ghost of a chance of success. God help the man this boy has to father! We can see him now darting through the bushes on a lean horse after a cow and calf he has taken from a poor widow for a "doctor's bill," and is driving home; for precisely as he would rob a teacher he would rob any one he could get his itching palms on.

Another writes directly to us to know if "Nashville" is as generous as two other cities he mentions, which offer him gratuitous instruction. He does not say why "the two cities" came to know his need in that direction. One was "Philadel-

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phia." We wrote him that he must be mistaken about Philadelphia—that of a thing in a thing that could have once been said, but that the thing once in the thing was now *no*-thing—abated, by law, as a public nuisance; so that Philadelphia was clean. But we regret that we cannot live to see one man whose boy father wrote a friend here to make enquiry whether "the Nashville University has any beneficiary places," &c. &c. He says he thinks if he could get a free course in Nashville he could practice on that for a year, and get "money enough to pay for a course in a Northern school"!!

Boys, rear up your children in the way they should go—to do which, of course, you must go that way yourselves. Davy Crocket's boy-father must have been a rough specimen, but when his son became a man, and got to be a member of the legislature here, he, in some way, got broke, and borrowed a hundred dollars from Esquire Barbee, member from Robertson, near the end of the session. Crocket, after reaching home, put his eldest son on a horse, with the one hundred dollars and traveling expenses, to carry it two hundred and fifty miles to Barbee—and in the dead of winter. Barbee took great pleasure in telling it.

Davy was a man, and his boy-father must have been a glorious fellow—he would have worn himself out hunting coons for their skins to pay his way, if necessary. When any one attempted to use him, when in Congress, for selfish ends, Davy would give him a peculiar look, and while the big veins in his neck would swell slightly, with indignation, he would say blandly, "Tote fair, now, tote fair." A good motto, young gentlemen meditating a garment out of other people's cloth, and worth remembering; "tote fair, tote fair."

We know what we say to be true, when we assert that sons of the richest men in their county have essayed all sorts of turning, twisting, and screwing, to shirk the payment of fees manfully met by hosts of struggling young men. Does not every man know, who is endowed with an amount of brains necessary for the decent life of a chicken, that in the neighborhood of every honorable, struggling, promising young man,

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are respectable honorable gentlemen of the medical profession, who would take enough interest in him to seek the aid of some medical college in his behalf, where he shows an inclination for the medical profession; and that there is not a medical college in all the land that would refuse to yield it. But these enterprising young gentlemen cannot wait for this, because they know they might wait for ever, but hasten, with bronzed countenances, to propose to harness teachers to a dog-cart, and drive them gratis, provided they will agree not to kick should the breeching break. "No use offering credit," says one of these deliciously cool and refreshing correspondents! Certainly not—none whatever. He knows himself too well not to know he would never pay a cent of it. But he need not expect credit for candor any more than credit for money; but he did when he penned it. The class of which he is a representative type are as well known to colleges as to their neighbors.

Peter Josten, a raw German, was tried the past month, at Franklin, Tennessee, for the alleged murder of Mrs. Hamblin. The poor fellow had been in jail all winter and spring, and at the trial was proven, beyond all doubt, to be innocent. Upon being liberated, good men, to the manor born, offered him money, to start again in the world. The poor fellow seemed surprised, thanked them in broken English, and declined to touch it, saying, in a tone that implied his belief that his kind friends were ignorant of the fact that "he could work!" His great countryman, Humboldt, lent Agassiz fifty dollars, and the borrower, in pronouncing an eulogium upon the lender, just then dead, boasted that he had never paid the fifty dollars, that the debt might remain a bond between the living and the dead! Between that eulogium and Josten's trial, Josten's people had swallowed up the people of Agassiz, as the rod of Aaron did the rod of the Egyptians.

"In crossing the river of life," said Schurz, in his German speech here to the Germans, "always look up, and your head won't swim"—"Wenn du den strom des Lebens ueberschreitest, blicke nach oben, damit du nicht schwindlest." Josten

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and Agassiz are representative men. Burns, in an impassioned climax of defiant independence, says, "God be thanked, I can plough."

PROFESSIONAL CHANGES.

PROFESSOR T. G. RICHARDSON has been transferred from the Chair of Anatomy in the University of Louisiana, to that of Surgery in the same institution, made vacant by the retirement of Professor Stone; and Professor Samuel Logan, formerly of the New Orleans School of Medicine, has been appointed Professor of Anatomy. No more worthy successor could have been found to the great Stone, and no better appointment could have been made to the Chair of Anatomy.

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Original Communications.

VACCINATION.

ITS POWER TO PROTECT THE SYSTEM AGAINST VARIOLOUS CONTAGION.

BY JAS. F. WEEDS, SURGEON U. S. ARMY.

[CONTINUED FROM THE JULY NUMBER.]

For a brief period following the introduction of vaccination, a belief was entertained by Jenner and others, that, through its agency, small-pox would become extinct; but as experience accumulated, it was soon demonstrated, at least in practice, to be a fallacious hope. As early as 1802, only four years after Jenner proclaimed his great discovery, cases of

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post-vaccinal small-pox were recorded. In 1806, Willan reported numerous cases of this kind. In 1809, Mr. Brown, of Musselburg, near Edinburg, Scotland, announced the opinion that the prophylactic virtue of vaccination diminished as the time from the operation increased. In 1818 and 1819, an epidemic of small-pox prevailed in Scotland, and many vaccinated persons contracted the disease in a modified form. It was at this time the term "varioloid" came into use. In 1818 Dr. Monro published his observations on this subject, and in 1820 Dr. Thompson, of Edinburgh, wrote on the same topic.

In 1823, Dr. Copland, contrasting cases of post-vaccinal small-pox, writes* that "The severity and fully developed condition of small-pox was generally in proportion to the length of time which had elapsed from vaccination."

The French epidemic of 1825, the Italian of 1826–27, and 1828, the Ceylon of 1834 and 1835, and the records of the London Small-pox Hospital, especially while under the supervision of Marson, has furnished abundant and incontrovertable evidence that the susceptibility to the infection of small-pox is, for an indeterminate period, destroyed by vaccination, but returns with increase of years, and becomes greater as life advances. This opinion, in connection with the numerous instances (from whatever cause) in which the protection has been insufficient, have led to the adoption of re-vaccination as a remedy. This practice is considered, by many able observers, to be only required when there is some defect in the primary vaccination; others, equally eminent, believe it has an additional use, that of extinguishing the renewed susceptibility to small-pox which sometimes occurs after vaccination, even when the operation has been performed in an unexceptionable manner. It is also resorted to by those who entertain the belief that vaccination loses its protective power in a direct ratio to the length of time that has intervened since the performance of the operation.

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* Dictionary of Practical Medicine, article "Small-pox," page 815.

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Re-vaccination has been gradually gaining in favor, and although its practice is far from being universal, yet it is yearly coming into more general use. In the armies of Prussia and Wurtemburg, re-vaccination has been rigidly enforced and thoroughly systematized, and it is here we find the most favorable results.

Dr. Heim reports that "In the army of Wurtemburg, during a period of five years, 14,384 soldiers were re-vaccinated, with only one case of varioloid; and that in 30,000 re-vaccinations in civil life, only two cases of post-vaccinal variola occurred, and one of these was probably a case of varicella."

During this period, small-pox broke out in the kingdom of Wurtemburg, in three hundred and forty-four different localities, with an aggregate of 1,674 cases.

Prior to re-vaccination being established in the Prussian army, the annual death-rate from variola was 104, and for the succeeding twenty years it was but two per annum. In the forty deaths from small-pox that occurred in this large army, in the above-named period, only four of them were in persons who had been successfully re-vaccinated.

In the Bavarian army, in which compulsory re-vaccination was instituted in 1843, there has not been, from that date to 1855, a period of thirteen years, a single reported case of small-pox.

Dr. Seaton, in commenting on these facts, says: "While they conclusively show the great importance of re-vaccination, they attest, at the same time, to the utter uselessness of repeating this operation again and again, in the individual, as seems to have become the recent fashion, whenever an epidemic of small-pox exists. One good thorough primary vaccination to start with, and one careful re-vaccination after puberty, are all that is necessary for the complete protection of the public against small-pox."

In localities where small-pox has been epidemic, it is almost a universal rule that vaccination and re-vaccination have been neglected; and the converse of this proposition is also true—that in localities where vaccination and re-vaccination have

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been universally and properly performed, epidemics of small-pox cannot exist.

In public institutions where small-pox has broken out, and all the inmates, without delay, have been vaccinated, I am unacquainted with a single instance on record in which the disease has not at once been obliterated.

I firmly believe that vaccination and re-vaccination, properly performed, renders complete protection against small-pox, and that wherever the disease exists, it is in consequence of this operation having been insufficiently and improperly performed. A greater or less number of persons, in the community in which small-pox exists, will be found to be only partially protected, and it is to their presence that the disease continues to extend.

I have no hesitancy in saying that in New York, Brooklyn, Philadelphia, Boston, Chicago, and other large cities, in which small-pox has become epidemic, large numbers of the inhabitants are either wholly unvaccinated, or but partially protected, and were it not for these classes of inhabitants, such epidemics could not exist. You might as well try to feed a flame without oxygen as to spread small-pox where each and every individual in the community was fully protected against it by complete and successful vaccination. We have the weapons in our hands to destroy the invader, but his march is, nevertheless, continued, and thousands of victims are sacrificed because we fail to properly use the means we have to drive the pestilence from the land—nay, to blot it out of existence. I am aware that these visitations are frequently attributed to an imperfect prophylactic power of vaccination, instead of to the imperfect manner of performing the operation; and so widespread is this feeling that, in England, an Anti-Vaccination League has been formed, and medical men have, from some motive or other, enrolled themselves under its banner. All I have to say to them is—Those who deny the protective power of vaccination, with the multitude of incontrovertable evidences to substantiate it, that have accumulated, from all parts of the world, through a period of three-quarters of a century

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that has elapsed since its discovery, would discredit the propositions of Euclid, and deny the correctness of the multiplication table.

Epidemics of small-pox find their victims among the unvaccinated, and the imperfectly and insufficiently vaccinated. Wipe out these classes, and you will, at the same time, wipe out epidemic small-pox. The fault is not in the defective power of vaccination, but in the imperfect and incomplete—I may say criminal—manner, in which it is used.

The French Academy of Medicine, after a thorough and protracted investigation, promulgated the following propositions:

"The Academy of Medicine believe it to be useful to make public the following declarations, which it commends to the attention of the government, and of the public:

"Vaccination is preservative from small-pox. Nevertheless, after a certain period, re-vaccination is indispensable to assure complete immunity against contagion.

"Re-vaccination is absolutely exempt from danger. The Academy formally repudiates all that has been said and published to the contrary.

"Re-vaccination may be useful at all ages; it may be performed without inconvenience during the prevalence of an epidemic; moreover, it is certain that, in small localities, in family boarding houses, or in collections of persons, it will effectually arrest a commencing epidemic.

"The existing epidemic in Paris, and other places, have furnished the most convincing proofs of the protective power of re-vaccination.

"In different army corps, and especially in the *Garde de Paris*, in many public and private establishments, and in some of the municipal schools, variola has been arrested by re-vaccination.

"Finally, the latest statistics, particularly those from the civil hospitals in Paris, prove most positively that very few re-vaccinated persons are attacked with small-pox, and that of those who were, *none died.*

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"It is, then, of the utmost interest to individuals and to the public, to encourage, by every possible means, the practice of re-vaccination."

The importance of these opinions and recommendations, enunciated, as they are, by the highest medical authority in the civilized world, arrived at after years of investigation and study, cannot be too highly estimated or too much importance be attached to them.

We are firmly of the opinion that if every child in the country was, in infancy, properly vaccinated, and the operation again carefully repeated soon after puberty, we should have very little small-pox; and I think it not at all improbable that, by a rigid enforcement of these prophylactic measures through a series of years, the terrible scourge of variola would be utterly annihilated. In practice, this desirable end may never be attained, and probably will not, for it would be impracticable to enforce universal vaccination throughout the whole world, and without it the disease cannot be stamped out of existence; and wherever it is neglected, there will it continue its ravages, and its infection will be propagated, and the loathsome disease communicated to unprotected persons who are so unfortunate as to be exposed to its influence. Granting that in consequence of the impossibility of making vaccination and re-vaccination universal, small-pox cannot be stamped out of existence, yet the fact remains, that if these prophylactic measures could be universally applied throughout the whole human family, variola could not exist, any more than a conflagration could continue in the absence of all combustible material.

At all events, in those localities in which vaccination and re-vaccination have become universal, the danger of importation of small-pox is reduced to a minimum, and would be as nothing compared with what it now is; and if so introduced, it would die out, and fail to spread, from the absence of individuals susceptible to its infection. This, gentlemen, should be the condition of every community in our land; and if such

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was the case, we might bid defiance to the scourge, for it could find no victims to destroy or disfigure.

Yet in the face of all these facts, we not only have small-pox, but, in nearly all large cities of the Union, its ravages are fearful to contemplate, and it threatens to become generally epidemic, unless its progress is stayed by more efficient vaccination than has heretofore been practiced. That small-pox is so very prevalent, or even that it exists at all, is not in consequence of the inability of vaccination to protect the system against its infection, but because vaccination is so generally neglected, and so insufficiently performed.

That this is the true state of the case, is proved, firstly, by an analysis of the death returns, as reported from the Register General's office of England, and secondly, by special inquiries instituted by the Privy Council of the same country. However interesting the details of this evidence may be, the recital of it would occupy too much time; but to those who feel an interest in the subject I would cordially recommend a perusal of the original reports.

Before closing this paper, it is only fair to the opponents of vaccination to briefly examine the objections raised against its use.

To me it is incomprehensible, what absurd and trivial things have been paraded before the public as objections to this simple and life-saving operation.

It has been claimed that vaccination has produced strange, and heretofore unheard-of, diseases—that it has degenerated the human species, morally and physically—that it has impaired the strength, enfeebled the body, diminished the stature, rendered persons weak and unable to bear fatigue—has driven people to the use of narcotics and intoxicating drinks, and a vast number of other things equally absurd and untenable. Such allegations require no more attention that did the alleged diseases produced by witchcraft, or the evil eye, in the days of Cotton Mather.

It has also been charged that, while re-vaccination very materially diminishes the deaths from small-pox, it increases

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the mortality from other diseases, especially from consumption, scrofula, and fevers.

It is not claimed that vaccination renders people immortal; so, if they are saved by it from death by small-pox, they of course must, sooner or later, die from some other cause. By the same course of reasoning, it might be claimed to be useless to save a man from drowning, as it would not be saving life; for, at some future time, he must die from something else. Such objections are too absurd to require refutation.

As regards vaccination increasing the mortality in consumption, scrofula, and fevers, carefully collected statistics show the converse of this proposition to be true. The mortality from these diseases, in Great Britain, and probably in this country, have decreased from fifteen to twenty per cent. since the introduction of vaccination.

Again, it has been claimed that vaccination, protecting the system against small-pox, leaves it more susceptible to the development of other diseases—to such an extent as to fully equal its benefits. This, too, is in opposition to sound reasoning, and the accumulated evidence of seventy-four years.

There is still one more charge brought against vaccination, a charge that requires a more careful investigation than those heretofore examined. I refer to the so-called vaccino-syphilis.

Cases of this kind were reported soon after the introduction of vaccination, and was one of the earliest objections urged against its use. They were few in number, far from being conclusive, and, until 1861, failed to attract much attention, from either the profession or the public.

In this year, events occurred at the Hotel Dieu, Paris, and at Rivalto, Italy, of a most startling character, and opened up for discussion the whole subject of vaccino-syphilis.

In the little town of Rivalto, at the time above mentioned, an endemic, stated to be syphilitic, took place, and was supposed to have originated in vaccination; but what seems to have been an extremely singular feature is, that similar endemics occurred in this village in 1814, 1841, and again in 1856,

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the endemic of 1861 being the fourth visitation of this character.

It must be admitted that the question of transmitability of syphilis, through vaccination, is one of great moment, and requires a careful, thorough, and impartial investigation; yet, important as it is, I must, for the want of time, abridge, as far as possible, the evidence presented by contending factions, to establish their respective doctrines. Let us cursorily examine the nature of the evidence upon which the supporters of the doctrine of vaccino-syphilis base their opinions.

I find, upon an extensive examination of the medical literature of this subject, that thirty to thirty-five instances are recorded in which syphilis is said to have been transmitted through vaccination. Their occurrence extends over a period of seventy years, and they have all been fully discussed, and nearly all pronounced, by the highest authorities of Europe and America, to be inconclusive. With the exception of the instances referred to at Rivalto and Paris, I will pass them by, as it would be a work of supererogation to re-examine them.

As it is chiefly on the two exceptional instances* that the vaccino-syphilists base their doctrines, I must ask your indulgence for a few minutes, to examine those instances more in detail.

In 1861, in the small town of Rivalto, a number of children became almost simultaneously affected with syphilis. Infants communicated the disease to their nurses, wives to their husbands, and even the children gave it to one another by kissing, or feeding out of the same plate, or eating with the same spoon. So startling were these events, that a scientific commission was convened, with Dr. Pacchiotti as its President, to investigate and report upon them.

The following facts were ascertained:

A child, named Chiabrera, was vaccinated, with lymph ob-

* A list of twenty of the cases referred to can be found in Seaton's Hand-Book of Vaccination. See note, pp. 361–3.

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tained from a tube. On the *tenth day, forty-six children were vaccinated from the resulting vesicle.*

One of these children (Manzone) again, on the *tenth day,* furnished virus for vaccinating seventeen other children.

Of these sixty-three children, forty-six had, within a period of sixty days, a disease pronounced by the commission to be syphilis, and to have originated in vaccination, the syphilitic symptoms appearing, on an average, in twenty days after the vaccination, while the minimum was only ten days.

Gentlemen, I have no doubt you have already raised, in your own minds, serious objections to the conclusions arrived at by Dr. Pacchiotti and his fellow commissioners.

The investigation was not began until the expiration of four months after the outbreak, and as not a single child had been examined by a medical man, prior to the meeting of the commission, the evidence was necessarily derived from the statements of prejudiced and ignorant relatives and friends, who trusted wholly to memory for the order, and relation, the various phenomena sustained to each other; and in an investigation of this kind, how important the dates, and order of the symptoms, should be undeniably established, to give weight to the conclusions derived from them.

It is stated by the commission that the virus with which Chiabrera was vaccinated, was taken from a tube; therefore we must infer that nothing was known of the source from which it came, nor is there any reliable evidence to show that the sore on Chiabrera's arm had the characteristics of a vaccine vesicle. All we know is, that the child was vaccinated from a tube, supposed to contain vaccine lymph; that a sore resulted, and that from this sore sixty-three other children were innoculated, and that forty-six of them had something the commission pronounced syphylis. Can you, gentlemen, accept such ambiguous evidence in the decision of so momentous a question? But this is not all. Lee gives the period of incubation of syphilis at from 21 to 49 days; Rollett places the mean at 26 days, and I am of the opinion that is rather under than over the true time.

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I have seen a soldier, upon whom an infecting chancre appeared thirty-five days after an impure coitus, and to my personal knowledge, he did not even see a female during the whole period of incubation, so it was impossible to have contracted the disease at a later date; yet Dr. Pacchiotti tells us that, in some cases, the symptoms appeared on the tenth day after vaccination. If this is true, the disease at Rivalto was not syphilis at all, or else our teachings concerning the period of incubation in that disease are all at fault.

The celebrated Sparino, and Marone of Purin, who investigated the outbreak at Rivalto at the same time as Dr. Pacchiotti, came to conclusions the opposite of those enunciated by the commission.

But granting that the disease was really syphilitic, is it not highly probable that the virus used to vaccinate Chiabrera was syphilitic, and not vaccine virus? If so, the case gives no support to the vaccino-syphilis; it was, then, merely an instance of syphilitic inoculation—a circumstance of not uncommon occurrence. In any event, the testimony is unworthy of confidence.

And so falls one of the strong supports of the doctrine of vaccino-syphilis.

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ATROPHY OF THE OPTIC NERVE FOLLOWING CEREBRAL DISEASE.

BY SWAN M. BURNETT, M. D., OF KNOXVILLE, TENNESSEE.

Read before the Medical Society of East Tennessee,

THE case I present to the Society at this time is interesting, not so much from its rarity—though it is not of very frequent occurrence—as from the relation it bears to diseased conditions of the encephalon, which might be readily overlooked, or misinterpreted. Neither is it reported with a view to show any brilliant results from treatment, for when the case came under my observation it was beyond the influence of remedial measures, therapeutic or operative.

It is related the rather to serve as the basis for a few observations upon a pathological condition of the eye not generally understood by general practitioners, to point out the importance of eye symptoms in the "clinical history" of cerebral diseases, and especially the value of the ophthalmoscope, as a means of diagnosis in these cases.

The patient is a young woman, 23 years of age, of healthy parentage, and of good constitution. Two years and a half ago she had an attack, which presented, as correctly as could be ascertained, the following symptoms:

For two weeks previous to the outbreak of the attack she suffered with a severe continuous headache, extending over the entire head, which, at the end of that time, localized itself over the left eye. She now began to vomit, and for two weeks vomited incessantly, not being able to retain anything on her stomach, the cephalalgia all the while unabating in intensity.

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During the entire two weeks she kept her eyes firmly closed, whether from intolerance of light she does not now remember, but it is highly probable that it was. There was considerable febrile excitement, and the bowels were very constipated, having no actions except those produced by enemas. It appears that she did not suffer from any considerable cerebral erethism, having no delirium, intolerance of sound, spasms of muscles, or paralysis. The absence of these symptoms, doubtless, misled her attending physicians, for they considered her as suffering from a severe "bilious attack," and treated her accordingly. At the end of the two weeks she was somewhat better, but, upon opening her eyes, found that she was barely able to distinguish light from darkness, and in a few days more was in darkness, total and complete.

She remained in bed some two months thereafter, suffering more or less with the pain in her head, but at the end of that time her vision had so far improved that she was able to distinguish light from darkness. It continued to improve from that time forth, until about eighteen months ago, since which time it has remained at about the same point.

Her condition, at the time of my examination, March, 1871, was as follows:

Vision in left eye confined to the perception of light, except when the object is at the extreme outer part of the visual field, when it can be discerned if of large size. V. F. in right eye contracted circularly to very narrow limits, not being more than $1\frac{1}{2}''$ in diameter at ordinary reading distance. Within this narrow field, vision is much better than with the other eye, she being able to read the headings of newspapers, to see her way, and do some household duties. *Pupils* of both eyes very much dilated; the *cornea*, *conjunctiva*, and *lens*, healthy. By the ophthalmoscope, all the media were seen to be clear, and the fundus brought plainly to view. The *retina* was of the normal even pinkish color, with no evidences of extravasations or exudations. The *veins*, however, were rather large and tortuous, and the *arteries* somewhat diminished in size. The *optic nerve* was very much changed from the normal. It

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was of a dead white color, tinged with blue, instead of the healthy transparent pinkish hue, and increased to nearly twice the natural size. Its *edge*, instead of being sharply defined, was ragged at some points, and in some places we observed points of pigment. The vessels passed straight over the edge, there appearing to be no cupping or excavation. All of these conditions were more marked in the left than the right eye. Tn. At present she suffers no pain in the eyes or head, and one looking casually at her would not be aware that she suffered from any eye trouble.

A connection between intra-cranial affections and so-called amaurosis physicians long ago recognized, but it was not until the invention of the ophthalmoscope by Helmheltz, and the application of it to the study of eye troubles in connection with cerebral affections, that our knowledge has assumed anything like a definite shape. J. Hulings Jackson, of London, has done more to advance our knowledge on this special subject than any other one man, from the fact that, being a general practitioner, he sees patients with brain troubles in their early stages, and is thus enabled to study the ophthalmic symptoms in their incipiency, the patient not generally applying to a specialist until vision is considerably impaired, and the disease has made some headway.

Optic neuritis and *neuro-retinitis* are the forms of ocular troubles usually found accompanying intra-cranial disease. There are two recognized forms of the disease, though they are often so blended as to be indistinguishable, especially if not seen until some time after their commencement. These two forms are generally known as the "ascending," where the pathological process begins within the eye and progresses outward, and the "descending," where it has its origin externally to the eye, and is propagated along the nerve to the interior of the globe. I will first relate the symptoms and ophthalmoscopical appearances found in both forms, and then point out the peculiarities of each. And first of the *ophthalmoscopic appearances*, as they are by far of the most importance. We observe a high state of congestion of the whole fundus of the

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eye. The retinal veins are large and tortuous, and the arteries diminished very much in size. The cause of this condition of the vessels is the pressure exercised on them at the scleral ring by the inflammatory exudation, causing, as will be readily seen, an obstruction to the *return* of blood by the retinal veins, and hence their congestion, and likewise to the entrance of blood by the retinal arteries, and a consequent diminution of their calibre. The most peculiar and characteristic appearances are seen, however, in the optic disc. It is enlarged, and has a swollen look. Its edge, instead of being sharply defined, shows a fringed border, and assumes the appearance known as "woolly." Its surface, nominally of a clear delicate pink, with only a few fine vessels running over it, is very red, and highly vascular. Often we notice extravasations of blood in various parts of the retina, from rupture of congested vessels.

In the "ascending" form, the signs of congestion generally predominate. The pathological process is confined more to the papilla, and implicates the retina less, than the other form, and hence is known by some as the "engorged papilla." Though there may be extravasations of blood, we rarely see the inflammatory exudations in the form of white patches that are observable in the "descending" form.

The "descending" form is often known as "optic neuro-retinitis" from the fact that the retina is generally implicated to a greater or less extent. The signs of inflammation are in excess of those of simple congestion, the redness and swelling are less, and the redness is tinged with a faint grayish color.

Causes.—The "engorged papilla" is produced by those causes that prevent a free return of blood through the central vein of the retina, as a tumor pressing on the nerve in the orbit, or tumor or abscess pressing upon the cavernous sinus, or any causes producing a high degree of congestion in the brain. Cerebral congestion is readily felt in the veins of the retina. Their calibre is enlarged, and effusion of serum takes place. When this occurs at the optic nerve entrance, the unyielding

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scloral ring prevents any outward pressure, thus producing increased constriction on the vessels, and heightening the congestion, by obstructing the return of blood from within the eye.

In the "descending" form, or neuro-retinitis, the inflammation is propagated along the optic nerve from without inwardly. It depends almost always upon intra-cranial inflammation. Very frequently, no doubt, the morbid process is propagated by continuity of structure, for the sheaths of the optic nerve are from the dura mater and pea moter. Prof. H. Knopp, of New York, at the last meeting of the American Ophthalmological Society (1870), offered some very interesting suggestions regarding the passage of inflammatory exudation from the arachnoidal cavity through the lamina cribrosa to the interior of the globe. He pointed out the anatomical fact, seemingly hitherto overlooked, of the continuation of the arachnoidal cavity, as the "intervagniel" space, or space between the outer and inner sheaths of the optic nerve. Along this space he has observed extravasated blood trouble pass through the lamina cribrosa to the interior of the globe, and he supposed that an exudation in the arachnoidal cavity might follow the same course. But it is morbid conditions of the brain, remote from the origin or course of the optic nerve, that we find most productive of neuro-retinitis. It is here that Hulings Jackson has done so much. He has investigated the subject most thoroughly, and arrived at very important results. Any "coarse" disease of the brain, to use a word of his own coinage, will produce optic neuro-retinitis. By *coarse* he signifies such conditions as tumors, abscess, and *not recent* blood-clot, excluding all those finer pathological changes, such as we find in epilepsy, chorea, &c. With these latter diseases he has never found neuritis. Furthermore, this "coarse" disease is always confined to the cerebrum or cerebellum, never having been found in the optic thalami, pons varolii, or medulla oblongata. It is with some difficulty that we are able to connect the clinical fact of the neuritis with the pathological condition found after death, for there is no *direct* connection

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between the two. The morbid process cannot be propagated by continuity of structure, for the tumor or abscess is often very distant from the origin or course of the nerve. The connection must, therefore, be *indirect*, and Hulings Jackson thus explains it: The tumor, abscess, &c., produces an irritation in the surrounding brain-substance; this irritation is conveyed, by means of the nerves that originate in that portion of the brain, to the muscular coat of the blood-vessels of the nerve and retina; this finally results in a dilatation of the vessels, and congestion and inflammation of the part ensues. He is more inclined to this opinion from the fact that neuritis requires time for its development, frequently not occurring for weeks after the first appearance of the brain trouble.

The only subjective *symptoms* of the disease are loss of sight, generally sudden, though the ophthalmoscope may show an excessive congestion and inflammation of the fundus, and still the vision remain very fair, the percipient elements of the retina not being involved. There are photoprias and chromoprias, in colored flashes of light, balls and rings of fire, &c. Pupils dilated or sluggish. When depending upon cerebral trouble, both eyes are generally affected. When the disease is monocular, the cause is generally not cerebral in its origin.

The *prognosis*, in both forms, varies much. If depending upon causes easily removed, or is seen early and treated energetically, it is of course much better than if the reverse is the case. If the inflammation can be controlled before it reaches the point of organization of its products, and before the nerve fibres have been seriously impaired by compression, the serum or other inflammatory products may be absorbed, and the nerve-fibres regain their normal function. But if pressure on the nerve-fibres be continued for any considerable length of time, atrophy will be the inevitable result. Vision, however, is not entirely lost in every case, even of long standing, for some of the fibres will escape excessive compression, and their function retained to some extent. Such has been the case in

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the right eye of our patient. After the inflammation has subsided, we usually find that atrophy of the nerve has taken place—and we have another set of ophthalmoscopical appearances. As the case under consideration is an excellent specimen of this condition, we will refer to it for a description of the appearance of atrophy of the optic nerve, and will not repeat it here.

As regards the *treatment* of neuritis and neuro-retinitis, it must be actively antiphlogistic. Leeches to the temples, and even general bleeding must be resorted to. Saline purgatives, and the usual antiphlogistic regimen. There is no doubt but that mercury, pushed to ptyolism, would be of immense service. The cerebral trouble, when present, must of course be treated according to its character.

In the case of the young lady reported by us, there was undoubtedly an intercranial inflammation, probably of a meningial character, but not of sufficient intensity to attract the attention of her attending physicians. The loss of sight was attributed, by them, to the *straining* caused by excessive vomiting. It is plain, however, that the atrophy of the nerve now present could have resulted from nothing else than inflammation.

In all conditions involving an inequality in the circulation in the cranial cavity, the ophthalmoscope is of great importance as a diagnostic agent. The connection between the vessels of the retina and brain is direct; the central artery of the retina being a branch of the ophthalmic, which is given off from the carotid. The central vein, carrying the blood from the interior of the globe, empties into the cavernous sinus. Any irregularity in the blood supply of one, whether of anemia or congestion, is therefore plainly shown in the other. The ophthalmoscope should always be resorted to when we have reason to suspect any cerebral trouble. Even in cases like the present, where it is beyond the pale of therapeutics, the ophthalmoscope is of immense service. It shows us the actual condition of the eye, and tells us that it can never ad-

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vance beyond its present degree of usefulness—that it is beyond the influence of medication. These facts may be of immense importance to her, in protecting her from the impositions of quacks, who, for a pecuniary consideration, would make fair promises of cure, but whose efforts must inevitably be fruitless, if not pernicious.

PUERPERAL CONVULSIONS.

VIEW OF TWO HUNDRED AND NINETY-SEVEN CASES.

A Paper read before the State Medical Society, April 2, 1872.

BY JOHN W. RICHARDSON, M. D., OF RUTHERFORD CO., TENN.

[CONTINUED FROM THE JULY NUMBER.]

A *new departure,* pathologically, began to be taken on puerperal convulsions, and W. Tyler Smith became conspicuous as an expounder of the new theory. (See *London Lancet,* Nov. 30, 1844—Feb. 1, 1845.) Dr. Smith remarks—

"It is a well-established fact in physiology, that, in animals, mechanical irritation of the spinal marrow within the theca vertebralis of the medulla oblongata and corpora quadrigemina, will cause convulsions. It is also well proved that irritation of every other part of the brain and cerebellum may be carried to any extent without producing convulsive action. Loss of voluntary motion may be thus caused, but the involuntary and

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spinal motions, those which, in morbid excess, constitute spasm and convulsion, remain unaffected. When the whole of the lobes of the cerebrum and cerebellum have been carefully removed, convulsions may be occasioned to any extent by irritation of the cranial termination of the spinal marrow. All these data have been abundantly proved by the vivisections of Majendie, Schœps, Florenns, Hertwell, and Marshall Hall. * * * * The brain, although the sensorium commune, has neither nerves of common sensation, nor of excito-motion. This is supported by pathological observation. A tumor gradually developed in the brain itself may excite no cerebral or spinal symptoms, while a spicula of bone on the inner surface of the skull may occasion epilepsy."

It would appear to be a necessary deduction from these facts, that, whether we use the term spinal marrow, or any other name, we are bound to consider the medulla spinalis and oblongata, with the corpora quadrigemina, as forming, together, one distinct organ,—as being a division of the nervous system, which, pathologically, as well as physiologically, must be looked on as separate from the brain, cerebellum, and the simple sensory, and voluntary nerves of the spinal cord. * * * * * * Indeed, as Prof. Grant and Dr. Hall long predicted, it has been found by Dr. Carpenter and Mr. Newport that, in the invertebrata, the excito-motory cord is anatomically distinct from the cord of nerves devoted to sensation and voluntary motion. * * * *

He says—"Let us now examine some of the presumed causes of puerperal convulsions, and first of all, the subject of cerebral congestion. During the pregnant and puerperal states, there is a greater tendency to fullness of the circulation than at other times, and in labor, especially in some of its stages, this vascular plethora particularly affects the head. In the second stage of labor, when the presence of the head of the fœtus in the vagina has excited the reflex action of the expiratory muscles, there is, during every pain, partial or entire closure of the glottis. This interferes with the circulation, and moreover, during the severe pains, a state of partial as-

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phyxia takes place, as may be seen by the distended state of the veins of the head and neck. The same venous congestion must occur to the spinal marrow, particularly its upper portion, though this has escaped the notice of writers on this subject."

"It would follow from the above, that, if simple pressure on the cerebral vascular system caused convulsions to as great an extent as obstetric authors generally suppose, they ought certainly to occur far more frequently during the second stage of labor than at any other time. But this is not the fact, as patients frequently fall into convulsions before labor has commenced, or during the first stage, when the respiratory system is undisturbed; or the patient may pass through the second stage of labor, when the disturbance of the circulation is at its maximum, without any sign of convulsion; and then appear, for the first time, after delivery has been completed.

"These facts alone are, I submit, sufficient to overturn the most generally received opinion as to the cause of puerperal convulsions. The error has arisen partly from observing the immense distension of the vessels of the upper part of the body during the paroxysm, and partly from the congestion, and serous, or sanguineous effusion, sometimes found after death. But it can be made clearly evident that these signs are, in the great majority of cases, not the causes, but the results of the disease. Rarely, excepting in convulsions occurring during a pain in the second stage of labor, can the congestion of the brain be fairly considered an exciting cause of the convulsion; and even here we have two causes in operation—the irritation of the excitor nerves of the uterus, as well as the vascular fullness."

After a long paper on the subject, Dr. Smith sums up his opinions on this subject as follows:

"Labor is a function of the excito-motory system, and the true puerperal convulsion can only occur when the central organ of this system—the spinal marrow—has been acted on by an excited condition of an important class of its incident nerves—namely, those passing from the uterine organs to the

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spinal marrow—such excitement depending on pregnancy, lalor, or the puerperal state. While the spinal marrow remains under the influence of either of these stimuli, convulsions may arise from two series of causes—of those acting primarily on the spinal marrow, or centric causes; and secondly, those affecting the extremities of its incident nerves—causes of eccentric or peripheral origin.

"I. *Causes acting immediately on the Central Organ.*—1, Loss of blood. 2, Pressure exerted on the spinal marrow, by congestion, coagula, or serous effusion within the cranium, &c. 3, Asphyxia of the spinal marrow, from spasmodic closure of the glottis. 4, Influence of emotion.

"II. *Causes acting on the Extremities of Excitor Nerves.*—1, Irritation of the incident spinal nerves of the uterus and uterine passages. 2, Irritation of the incident spinal nerves of the rectum. 3, Irritation of the gastric and intestinal branches of the pneumo-gastric nerve. 4, Irritation of the incident spinal nerves of the bladder. 5, As probable causes, may be enumerated, irritation of the cutaneous nerves of the mamma, and of the hepatic and renal branches of the pneumo-gastric.

"Though the subject distinctly admits of this division, several causes may act together, and centric and eccentric causes may be in operation at the same time."

Professor Henry Miller, also, adopts Marshall Hall's theory. In his work on Obstetrics, 1858, he says:

"The most plausible solution of the phenomena, from the slight commencement up to the completion of the convulsive paroxysm, is afforded by the application of Dr. Marshall Hall's theory, of the excito-motory function of the spinal marrow, according to which, neither the cerebrum nor cerebellum is implicated, but the true spinal system, and more especially the medulla oblongata. Morbid irritation of the uterus, as well as of other organs propagated to this system through the incident nerves, is radiated over the whole of the voluntary muscles, and the muscles of respiration. * * * The disease consisting in morbid irritation only, of an important

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branch of the nervous system, emanating, in most instances, from the uterus and its annexes, it ought not to excite our surprise that the scalpel of the morbid anatomist has failed to discover palpable lesion, commensurate with the violence of the convulsive explosions."

This theory has led not only to a new departure as to the pathology of puerperal convulsions, but also as to the treatment, which will be elucidated as we proceed in our examination of this most frightful and interesting malady.

Prof. Murphy, University College (1849), sums up his examinations on the Nature and Causes of Puerperal Convulsions in the following remarks:

1st. Puerperal convulsions should not be confounded with epilepsy, nor with apoplexy. They agree with the epileptic attack in their physiological, but not in their pathological characters. Apoplexy is an effect of the paroxysms, which may or may not follow from them.

2nd. The predisposing causes of puerperal convulsions are either an excess of blood, hyperemia—a deficiency of blood, anemia—or impure blood.

3rd. The proximate causes of convulsions are chiefly eccentric causes, being the morbid irritation of the afferent nerves supplying the different vital organs.

4th. Morbid irritation of the uterus is the most common proximate cause of puerperal convulsions, the result either of hyperemia or anemia. Hence the division into sthenic, or hyperemic convulsions, and asthenic, or anemic, convulsions. Under the latter head we include not merely loss of blood, but poverty of blood, and impure blood, because the effect seems to be similar, only differing in degree.

5th. Morbid irritation of other organs, also, causes puerperal convulsions, because, during pregnancy, and at the time of labor, the nervous system is more excitable than at any other time; and hence, any organ may easily be rendered morbidly irritable. Puerperal convulsions so caused are much more fatal than the former, because the nervous centre is exposed to a

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two-fold source of irritation—the organ primarily affected, and the uterus, that is secondarily excited.

6th. In the whole of these phenomena we must perceive a beautiful illustration of the reflex nervous function; the peripheral nerves that supply the affected organ, rapidly communicating their irritation to the spinal system, which, as an excito-motor centre, radiate the irritation over the whole of the voluntary muscles, and the muscles of respiration in violent convulsive paroxysms. Even the involuntary muscles, as the uterus and heart, do not escape, but give every evidence of greatly increased muscular contractions.—(*Medical Gazette*, January, 1849.)

Dropsy and albuminuria have been, lately, intimately connected with puerperal convulsions. Prof. J. T. Gilmore, of Mobile, Alabama, writes me that he "has always regarded the real pathology of this disease as existing in the disturbed action of the kidneys," and that he thinks "the existence of albuminous urine may be explained by the pressure of the gravid uterus upon the emulgent veins of the kidneys, thus producing a congestive nephritis. * * * And whether the retained urea has anything to do with the convulsions or not, it is an important clinical fact that albuminous urine is almost invariably found in cases of real convulsions in child-bearing women." All the cases he had seen die seemed to him to pass off from a diseased brain.

Prof. Joseph Carson, in an interesting and able review of several publications on puerperal convulsions and kindred subjects, (see *American Journal of the Medical Sciences*, for April, 1871,) says: "The existence of *dropsy* in connection with puerperal convulsions was first noticed by Dr. Hamilton, of Edinburgh, in 1800. It soon attracted the attention of Demarret, in France, and other European practitioners. And the first definite notice, in this country, of the association between convulsions and dropsy, was published by Dr. Lyman, of Connecticut, in 1824. In speaking of dropsy as a symptom, he says—'I have mentioned the dropsy of pregnancy as

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a precursory symptom of puerperal convulsions. It is to be understood, when I speak of it as such, I do not mean by it that swelling of the feet which so often takes place during utero-gestation, but a general edema, accompanied most commonly with diminished secretion of urine.'"

Prof. Carson says—"Although mentioned by previous writers, as Coterninus, Darwin, and Fordyce, the presence of albumen in the urine was first practically referred to by Cruikshank and Dr. Blackall. It was called *serous* urine by the former. He says—'Mr. Robinson has shown that causes which induce congestion of the kidneys, by preventing the return of blood through their veins, as abdominal tumors, &c., will produce renal congestion and albuminous urine. Such origin of albuminous urine in pregnant women has been particularized by Dr. Lever. The more the pregnancy advances, the more the albumen in the urine increases.'"

In 1836, Dr. Bright reported five cases of convulsions, in association with the granulated state of the kidneys.

In 1843, Dr. Lever published fourteen cases of puerperal convulsions, under the name of anemic convulsions, in nine of which albuminous urine was present. The occurrence of the first case where this feature presented, led him to further examine into the connection between convulsions and albuminuria, and he states that he carefully examined the urine in every subsequent case that came under his observation, both in the Lying-in Charity of Guy's Hospital and in private practice, and in every case but one the urine was found to be albuminous at the time of the convulsions. He further investigated the condition of the urine in upwards of fifty women, from whom the urine had been drawn during labor by the catheter, and the result was that, in no cases did he detect albumen, except in those in which there had been convulsions, or in which the precursory symptoms presented themselves.

While Dr. Lever was pursuing his researches, Dr. Sympson, of Edinburgh, was engaged in similar observations, from which he drew the following conclusions. (See *Monthly Journal Medical Sciences*, October, 1847.)

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1st. Albuminuria, when present during the last periods of pregnancy and labor, denotes a great and marked tendency to puerperal convulsions.

2nd. Albuminuria in the pregnant and puerperal state sometimes gives rise to other and more anomalous derangements of the nervous system without proceeding to convulsions, and Dr. S. had especially observed states of local paralysis and neuralgia in the extremities, functional lesion of sight (amaurosis, &c.,) and hearing, hemiplegia, and paraplegia, more or less fully developed. He says: Edema of the face and hands (going on to anasarca) is one of the most frequent results of albuminuria in the pregnant female. Albuminuria and its effects are far more common in first than in latter labors, but generally disappears entirely after delivery. Albuminuria, with convulsions, &c., occurring in any labor later than the first, generally results from fixed granular disease of the kidney, and does not disappear after delivery. He says—"Perhaps in puerperal convulsions produced by albuminuria, the immediate pathological cause of the nervous lesion is some unascertained, but poisoned state of the blood. Was there a morbid quantity of urea in the blood? Dr. Christison and Dr. Maclagan had failed to detect it."

Prof. Carson says that "these observations of Lever and Sympson have been corroborated by subsequent investigators in Europe and America. Prof. Carl Braun, of Vienna, referring to the coincidence of eclampsia and albuminuria, remarks that this has opened a new path to the knowledge of this most dangerous disease; so that the eclamptic convulsions of women during pregnancy must be considered to be identical with the fits of adults in general that are produced by uremia in the course of Bright's disease."

It is exceedingly difficult to define, or even to understand, what part albuminuria performs in the generation of puerperal convulsions. Why an inordinate quantity of albumen should be selected from the blood by the kidneys, and urea, or the components of urea, left behind, when we understand it to be soluble in its own weight of water, is hard to understand. It

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is assumed to be true, however, and that it poisons the blood, thereby producing *uremic convulsions.* If these convulsions are produced by *poisoned blood,* there must be a very sudden process, unknown to me, by which the blood is purged of its poison and restored to purity, or the convulsions would not cease so abruptly as they often do. Nor could they be suddenly arrested by venesection, as some of our friends contend they often are, unless the phlebotomist should luckily tap the vein which leads to the poisoned fountain.

When the secretion of urine is suspended, we then have a fair opportunity of witnessing its effect upon the brain; and what is it? Why, invariably, according to my observation, a state of drowsiness, stupor, and finally coma, with very slight, if any, muscular twitching. We can understand why a continuous and excessive secretion, or leakage, of albumen from the blood, may impoverish it, and make it watery, and unfit for healthy nutrition.

Prof. Carson remarks that "when the demonstration was made that parturient women, attacked with convulsions, labored under albuminuria, the assumption gained ready credence that, as there was a diminution of urea in the urine in that disease, the detention of urea in the blood was the cause of convulsive attacks, and hence the terms adopted, of *uremic intoxication* and *uremic convulsions.*"

We will now direct our attention more particularly to the review of Prof. Carson, which may be seen in the *American Journal of the Medical Sciences,* for April, 1871, and two cases reported in the Philadelphia *Medical Times,* Nov. 15, 1871, illustrative of the conclusions arrived at in the former paper. This paper, whatever may be the opinions of the profession as to its merits and pathological value, is certainly the fullest and most comprehensive, on the medical literature of puerperal convulsions, that I have seen.

These two cases I do not consider typical cases of puerperal convulsions, as they generally occur; but they are typical of a certain class of convulsions, and fairly represent the positions taken by Prof. Carson in his paper for April, 1871, as we

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shall see. I shall only anticipate his conclusions by quoting the following passage from the *Medical Times* of Nov. 15, 1871. He says—

"As albuminuria disappears, in most of the cases of pregnancy, when labor has taken place, it must be admitted that the cause of albumen in the urine, except when real disease of the kidney exists, is that pointed out by Dr. Robinson and Dr. Brown Sequard, viz., the obstacle to the return of blood from the kidneys, presented by the gravid uterus—and that the cause of the dropsy is the still greater impoverishment of anemic blood by the loss of albumen. There evidently existed in these cases the condition most favorable to the occurrence of convulsions, an anemic state of the nervous centre, more particularly of the excitable motor track. This condition has been called by Wigand *convulsibility*, and by Dr. Tyler Smith, *convulsior erethismus*. It has been well portrayed by Dr. Marshall Hall, and recognized by other observers as depending on impaired nutrition of the nervous centre."

The papers of Prof. Carson are far too long to be fully incorporated into this report; I can only give a few extracts, and the conclusions at which he arrived, after a laborious examination of all the authorities extant, in relation to this and kindred nervous diseases. I most earnestly request all those who wish to investigate the subject of puerperal convulsions, to read those papers before they form any positive opinions on the subject.

Prof. Carson (*Am. Jour. Med. Sciences*, April, 1871,) commences his review—

"It is well known from experiment and observation that convulsive movements can be *directly* excited by causes affecting the central nervous masses or the trunks of the motor nerves, and *indirectly* by such as impress the terminations of the excitant nerves in the several organs of the body—which produce their effects through the instrumentality of reflex action.

"To attribute, exclusively, the originating source of convulsions to the spinal marrow, is not in accordance with the

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facts derived from anatomical investigation or physiological research. As the inaccuracy of such limitation will be clearly apparent when the causes of convulsive movements are discussed, it need only now be stated that the brain, being regarded as a prolongation of the spinal axis, built, as it were, upon it, automatic movements proceed from it as well as from the spinal axis. Motor structure, indeed, constitutes a portion of the brain itself; and were it not for this, the reflex movements connected with the senses could not be excited. It is, moreover, through the motor track, extending into the brain, that the purposes of intelligence and volition are accomplished; and as unconsciousness and insensibility are the precursors and concomitants of convulsions, and, further, as muscles of the senses are involved in the attack, it must be admitted that this organ is deeply interested.

"Hippocrates recognized convulsions as proceeding from repletion or depletion, and his translator, Dr. Adams, remarked that this is a most important fact both in therapeutics and prognostics, especially in puerperal convulsions. This idea of repletion, or *plethora in the vessels of the brain,* has been extensively received in Europe and America, and has entailed the *practice* of depletion. This determination to the brain, as a *centric* cause, producing convulsions, naturally enough induced the belief that such convulsions were the effect of inordinate nutritive activity. And Mr. Solly assumes that this excessive secretion is carried off by the motor nerves, like a discharge from an electric battery, and from its quantity and excess, produces excessive action of the muscles."

After examining and discussing the various causes assigned for convulsions, viz., repletion, depletion, stoppage of circulation in the brain, albuminuria, toxemia, the conversion of urea into *carbonate of ammonia in the blood,* arrest of the heart's action, &c. &c., Prof. Carson comes to the following conclusions:

1. Convulsions are centric or eccentric.

2. That determination of blood to the head, although productive of a comatose state, is not the cause of convulsions.

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3. That convulsions follow directly the loss of blood on stoppage of the circulation of the brain.

4. That the whole motor nervous track is involved in the production of convulsions, and that other portions of the brain are not directly instrumental in producing them.

5. Convulsions are consequent to the abstraction of nutrition in the motor portion of the brain.

6. Anemia predisposes to convulsions.

7. That anemia is produced by albuminuria, and connected with this is dropsy.

8. That the blood in albuminuria and dropsy is deprived of its nutrient elements, and becomes hydropic.

9. That the constitution of the urine corresponds to the constitution of the blood, and the amount of urea in it is in accordance with that formed in the blood.

10. That neither urea, nor carbonate of ammonia in the blood, constitutes the cause of convulsions.

11. That in albuminuria the predominant symptoms are sopor and coma.

12. That albuminuria is to be regarded in the same category of diseases as hemorrhage.

13. That from the constitution of the blood in pregnancy, and especially when its hydropic condition is increased by albuminuria, there is engendered an especial aptitude to the occurrence of convulsive attacks, which has been called *convulsibility*. This depends upon altered nutrition in the nervous centres.

14. That puerperal eclampsia and epilepsy are analogous affections.

15. That the mechanism of convulsions involves the production of syncope, which depends upon the suspension of the heart's action, and that this occurs through the instrumentality of reflex action, by shock, or by loss of blood.

16. That the carbonic acid of venous blood is not the originating cause of convulsions.

17. That the order of convulsive movements is progressive, from above downwards. Syncope and loss of consciousness

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constitute the first symptoms; secondly, convulsions begin in the muscles of the eyes and face, and then occur in those of the larynx, throat, chest, and extremities; thirdly, when laryngismus is complete asphyxia is produced, and the convulsions are suspended by coma.

18. That if air be gradually introduced into the veins of an animal, asphyxia is produced, and no convulsions occur; but if introduced suddenly, so as to distend the right side of the heart and prevent its contractions, convulsions immediately follow. The same is the case with oxygen, carbonic acid, and other gases.

19. When air and other gases are introduced into the carotid arteries, in amount sufficient to produce pressure, apoplectic symptoms are the consequence. But if air or carbonic acid, in quantity capable of being absorbed by the blood, be introduced, its presence is tolerated by the brain.

20. That carbonic acid is irrespirable, and positively stupefying when inhaled, hence asphyxia can be produced by it.

21. That when asphyxia is produced in the course of convulsions by the impediment to respiration, and the blood becomes completely venous in the lungs and circulation, it, in connection with the pressure induced by impeded respiration, terminates the attack by a species of narcotism.

In this way convulsions are self-limited.

Prof. Niemeyer, in his *Text-Book of Practical Medicine*, associates albuminuria and dropsy in pregnancy, with eclampsia, and says that they provoke convulsions during and immediately after parturition, and that they are connected with renal disease. He says—"We are quite ready to admit that, in most cases of eclampsia puerperarum, there is renal disease; but we deem it quite inadmissible to attribute the albuminuria, dropsy, and eclampsia, to Bright's disease." He thinks "no sharp distinction can be drawn between epilepsy and eclampsia, although the convulsions occurring in protracted cases of uremic intoxication are considered by some authors to be eclamptic, and by others to be epileptic." Yet he says that eclampsia is only distinguishable from epilepsy by the acute-

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ness of its course—that the eclampsia of parturient and puerperal women is very often dependent upon a morbid condition of the gravid uterus—upon other and unknown disorders of pregnancy, or of child-bed; and he refers the subjects to the text-books of obstetrics.

Let us now look at an attack of puerperal convulsions as it usually occurs—I adopt the scene as described by Prof. Carson, because it is so truthfully and forcibly expressed:

"The first symptoms to be noticed in the attack of convulsions are pallor of the countenance, depression, if not actual loss of pulse, loss of consciousness, and syncope. The convulsive movements commence in the muscles of the eyes, of the face, of the throat, and finally extend to the entire system. From the time that the muscles of the throat, including the larynx, are involved, the face becomes livid, the minute vessels are swollen and finally cyanosed, the eyes and the lips assume a purplish hue, and gradually asphyxia is established, with less and less of convulsive movement, until this disappears under the engorgement of the brain with black blood. The subject of the fit is then comatose. The pulse, which had been depressed or lost in the first stage, becomes more perceptible as the convulsions proceed, rapid at first, and full and slow as coma is established. As the blood, which had been thoroughly venous and charged with carbonic acid, regains oxygen, the symptoms of asphyxia disappear, and the brain, as it is relieved from pressure, regains its wonted activity; there is then a return to consciousness. It appears from the course pursued by them, that convulsions are self-limited; and we can agree with the statement of Robin, that 'the attack itself originates a cause which puts an end to it, and allows it only a short duration.' The convulsion is cured by a species of *natural narcotism.*"

Dr. Carson believes that *stoppage of the heart's action is the originating cause of convulsions, by failing to supply the brain with blood.*

[TO BE CONTINUED IN THE NEXT NUMBER.]

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ANTIDOTAL EFFECTS OF BELLADONNA IN OPIUM POISONING.

BY R. D. BONE, M. D., LARISSA, TEXAS.

THE remarks made on the second day of the meeting of the Tennessee Medical Society—April 3rd, 1872—upon the reading of Dr. Alexander's paper on "Opium Poisoning Treated with Large Doses of Belladonna," prompts me to report the following case:

The child of Mr. S. T——, aged seven months, through mistake of the mother, took morphia sol., grs. ij. This occurred on the 4th of November, 1870, one mile from this place. Discovering the mistake very soon, a messenger was dispatched, in haste, for medical assistance.

Dr. J. A. S—— first saw the case, and found it profoundly under the influence of the opiate. Failing to effect anything by emetics, because of an entire suspension of deglutition, and the apparent hopelessness of the case, he withdrew. Hearing the above facts from Dr. S——, and remembering Dr. Maddin's theory, enunciated by him several years ago, and being family physicians, we (myself and partner, Dr. G. W. Amett,) repaired at once to the scene of action.

We found the child in a state of profound coma, complete anæsthesia, livid and cold surface, pupils contracted to a mere point, no perceivable circulation in extremities, breathing stertorous, and from two to four respirations per minute. With little or no expectation of accomplishing anything in the way of resuscitation, we at once introduced belladonna ex. grs. ijss. (rubbed in water as a vehicle), and repeated it every ten minutes till ten grains were given. It was introduced by enema.

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It must be remarked that other means were used conjointly with the belladonna, as a stream of cord water to the head, hot pedeluvia, flagellation, a strong decoction of green coffee by enema, &c.

The first appearance of resuscitation was increase in the number of respirations per minute, then dilatation of pupil—at first continually alternated between dilatation and contraction, till, at last, a full dilated pupil was shown. Anæsthesia gradually subsided, muscular action resumed its office, and, in two hours from our arrival, we had the exquisite pleasure of hearing the child cry, and afterwards witnessing its entire recovery.

The *certainty* of the antidotal effects of the drug in question, in opium poisoning, may be questioned by medical men, and the results of practice, with some, may confirm them as to its inefficiency; but to our minds, in this case it was the medium through which the effects of the morphine were displaced, and the life of the child saved. That the powers of nature rose in such might as to give the speedy relief witnessed, is hardly a tenable conclusion; and that the other means used were so promptly efficient is not probable.

The subsidence of such a profound condition upon the appearance of the therapeutical action of the belladonna, would hardly fail to convince the most doubtful as to its potency in like cases, and justify us in repeating the practice.

Dr. N. G. M. Walker, of this vicinity, related to me a case where laudanum was taken for suicidal purposes, in which belladonna thrown into the stomach had the happiest effect.

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Selected.

THE SYNOVIAL MEMBRANES IN PYÆMIA.

BY ROBERT HAMILTON, F.R.C.S., LIVERPOOL.

After a brief account of the views at present held by the majority of writers on pyæmia, as to the origin of the morbid changes found in this disease, the author dwelt upon the fact of the synovial membranes being generally attacked in pyæmia. This circumstance had not, hitherto, attracted sufficient attention, though it was extremely probable that the first step in those forms of surgical pyæmia commonly met with in hospital practice, was to be found there. All the cases occurring at the Liverpool Southern Hospital, for the last thirteen years, of which particulars had been kept, had some joint-affection. In some, the pathological changes in the joint were slight, in others most extensive. That the disease observable in the joints began in the synovial membrane, was rendered probable from the character of the pain, and from the appearances found after death.

The poison of pyæmia, as observed in hospital practice, was *sui generis*. Whether generated in the system from a combination of constitutional and surrounding conditions, or entering as a specific germ through a wound, it had a special affinity for certain structures, and to these it passed at once. The structures were assumed to be the synovial membranes. In what this affinity or attractiveness consisted we were as yet ignorant, and could but illustrate it by what took place in other

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diseases, such as the cholera poison, and the scarlatinal poison, or the producer of tetanus; whether it were a something evolved within the system, or introduced from without, it went at once to certain nerve-tissues, and in them created changes which set up other morbid action. Many drugs illustrated the same fact. Strychnia, when swallowed, or when subcutaneously injected, had but one form of action—it affected nerve tissue only.

The strong analogy between pyæmia at the commencement, and acute rheumatism, had often been observed. In both there were the rigors, the fever, the rapid pulse, the profuse sweating; but, above all, there were the pain and swelling of one or more joints. It seemed probable that, in both, an entity had entered the system, whose habitat is the joints. It was not known in what consisted the difference of the two poisons, so that the one, as a rule, eventuated in recovery, and the other in a train of pathological changes whose termination was death.

In both cases the tissue first affected was the synovial membrane. The abnormal action induced in it led to an increased secretion of synovia, probably unaltered in its character and constituents in rheumatism, but abnormal in pyæmia.

In the case of the synovial fluids there was, in most joints, a limit to its quantity; so tightly was the synovial sac compressed by the yielding tissues, that an amount of tension quickly ensued, which led to a forced absorption of some of the effused fluid, and then ensued in acute rheumatism, and probably, as a necessary sequence, an extension of the disease to other synovial sacs, and often to the pericardium, a serous membrane, but closely allied, in its nature, to a synovial membrane.

This augmented synovial fluid, in rheumatism, was bland and innocuous—a mere increase of the natural secretion; but in pyæmia it was in a decomposing state, developing rapidly germs of a lower organization; and when such a fluid had been absorbed, and in its course reached the minute capillaries of the lungs, some of its morbid cells coagulated the fibrine of

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the blood there, and became arrested, and thus were formed the nuclei with which the lungs were studded, around which more fibrine was deposited, and the pathological changes followed, as described by Virchow and others.

In conclusion, the author stated that, in limiting the paper to a consideration of the fact of the synovial membranes being the tissues first affected in many forms of pyæmia, he had not lost sight of the probability of many other phases of pyæmia having their beginnings in one or other of the serous membranes, these two membranes being closely allied in their microscopic characters.—*London Medical Press and Circular*, June 5, 1872.

TREATMENT OF PLEURISY.

Dr. C. J. B. Williams, in his "Sketches of Success and Failure in Medicine," when speaking of pleurisy, says:

The treatment which is successful in a large proportion of cases of acute pleurisy is chiefly antiphlogistic, and more local than in pneumonia. Venesection is required only in the plethoric and robust, and then only in the earliest stage of the sthenic form; but leeches or cupping may be used with advantage so long as there is pain, with increased temperature. In very many cases there is little or no heat of skin; and in these I prefer a large blister at once, keeping it on not more than six or eight hours, and following it with a large poultice covered with oiled silk. This promotes the discharge from the blistered surface, and, acting as a comfortable fomentation on the side, may well be continued till the parts are ready for further blistering, should it be required.

Of internal medicines, mercurial and saline diuretics are the best for the early stage of the inflammation. If there be severe pain, I give a few doses of calomel combined with mor-

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phia, till the pain is relieved, and then substitute small doses of blue pill, with squill and digitalis, two or three times a day, until an effect is produced on the bowels, kidneys, or gums. Salivation is by no means necessary or desirable, the best operation of mercury being on the liver and kidneys; and when these are brought to act freely, the effusion, if serous, generally is stayed, and will diminish—quickly in some cases, and very slowly in others—without any further active treatment. Saline diuretics of citrate and nitrate, or acetate, of potash, are useful in most cases.

In mild forms of the disease mercury is not necessary; blisters and saline diuretics are sufficient, and may soon be changed for iodide of potassium in a bitter infusion, with daily painting the affected side with tincture of iodine.

But sometimes we meet with cases of extensive pleuritic effusion, which, either from original intensity or from not having been treated soon enough, will not yield to any or all of these remedies; and whenever the effusion is so much as to cause such distress in breathing as to interfere with the comfort of the patient, and especially to prevent sleep, there should be no delay in puncturing the chest. We may be more confirmed in recommending this treatment if the symptoms render it probable that the effusion is purulent, and we may often guess this to be the case when there is general pallor, with partial hectic flush, alternations of chills and sweats, very frequent pulse, much weakness and tremulousness of movement, and more than usual tenderness and puffy feeling of the walls of the affected side.

I must admit, however, that I have noticed tenderness and even swelling of the integuments of the walls of the chest in some cases, which yielded to treatment without tapping, and probably were not purulent. Still the symptom is suspicious, and, if in conjunction with others above-mentioned, may be taken in favor of the effusion being purulent. In doubtful cases the grooved needle may be used to settle the point, if there be any question about the propriety of operating; but I would repeat, that, when there is great and continued oppres-

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sion—such as to prevent sleep—I think the operation should be performed, whether the effusion is purulent or serous only. In case of serous effusion, tapping to the removal of two or three pints may be enough to relieve the oppression; the respiration and circulation being thus set free, the rest will probably be absorbed. But in cases of empyema it is desirable to evacuate more matter, and we may require repeated operations. As it is impossible to evacuate all the matter, a long time is required for the lung to re-expand, and for the pyogenic membrane to become covered with lymph, which obliterates the cavity by the adhesion of the pleural surfaces.—*London Medical Times and Gazette*, March 23, 1872.

WHAT NEXT, AND NEXT?

In the London *Medical Times and Gazette* of May 11th, we see it stated that, "In an old Bill of Sir Andrew Agnew, for preventing Sunday work, the provisions were carried to an extent that rendered the measure ridiculous and impracticable. In a popular song of the time—one of Hudson's—amongst other things mentioned was—

> 'Women taken in labor on Sunday
> Must put off the hard work until the Monday.'

Even the wags of the period, however, did not venture to suggest a 'day of rest' for the poor Doctor—that was beyond the imagination of the most imaginative and suggestive. But now there seems something approaching, at all events, a release from labor for even the hard-worked medical practitioner. It is stated that the Doctors' coachmen in Edinburgh are organizing against the imposition of Sunday labor. If the effort be successful, the horses of course must rest. If the horses, why not their masters, as well as their drivers?"

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Extracts from Home and Foreign Journals.

SURGICAL.

COLLATED BY PAUL F. EVE, M. D.

TRACHEOTOMY BY GALVANO-CAUTERY TO PREVENT HEMORRHAGE.

In the Academy of Medicine, April 23rd, M. Verneuil observed that tracheotomy, as usually practised, is a dangerous operation on account of the hemorrhages, which are so difficult to be avoided, and on account of the introduction of air into the veins. In the case of a patient, aged 38, nearly asphyxiated from tuberculization of the larynx, Verneuil performed tracheotomy by the aid of galvano-cautery. The point of the knife was heated to a dull red, and entered at the level of the cricoid ring. The instrument, moderately pressed, and slowly cutting, easily penetrated the skin for about a length of three centimetres. The knife, again heated, was carried again to the upper part of the wound, and then brought slowly down, dividing the sponeurosis and separating the thyro-hyoid muscles. A third time the knife was used in the same manner, cautiously and slowly, and then two assistants, pulling the wound asunder by hooks, the eye and fingers could easily perceive the cricoid cartilage and upper rings of the trachea, which were naked, and almost as visible as upon the subject. The cartilages of the two first rings were then divided by the heated knife. No blood was spilt during the operation. The operation lasted some six minutes. The patient did well, and

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ten days after the operation the tube was removed.—*Dublin Medical Press and Circular.—Boston Medical and Surgical Journal.*

LIFE SUSTAINED IN OPIUM POISON.

Charles E. Smith, M. D., and H. C. Hand, M. D., of St. Paul, Minnesota, report to the *Philadelphia Medical Times* a case of opium-poisoning, and recapitulate the points of interest as follows:

1. That one and a half fluid-ounces of laudanum were taken, the most of which was absorbed.

2. The hypodermic injection of one-sixteenth of a grain of atropia dilated the pupils widely, but had *no effect whatever* on the pulse, respiration, or color of the skin.

3. The magneto-electric and faradaic currents were each found more useful for being intermitted and alternated. Benefit was also noted from occasionally shifting one pole from over the position of the phrenic nerve to the spinal column.

4. By far the most important remedial measure used was *artificial respiration.* During three hours it was continuously persevered in, with the constant hope that natural respiration would come to our relief. Twice in this time an attempt at such respiration became apparent. This, favored by the use of the batteries, continued each time about five minutes, when it ceased, and the pulse became small and fluttering. For these three hours of vital importance, death was kept from assuming his dominion only by rhythmical breathing performed mechanically for the patient, not by him.

At the close of the third hour, the vital forces—the heart's action especially—were failing, in spite of the artificial respiration, and it seemed almost certain that this means could preserve life but little longer.

Magneto-electricity, with unexpected efficacy, now furnished the stimulus needed to strengthen the heart and elicit those first evidences of return to life so grateful to his almost hopeless attendants.

The method of respiration used was Sylvester's, with an oc-

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casional change to that recommended by Dr. Benjamin Howard [for a full description of which, see *Medical Times*, vol. ii. page 154]. Both methods were efficient; the change from one to the other was beneficial, because in this way the operator obtained a little rest, and because deeper respirations could be forced on making the change after the chest had become accustomed to one method.

In conclusion, we might mention another case of opium narcotism in a young woman, which was nearly as profound as this, and in which we had the satisfaction of seeing signs of life return after a steady perseverance in artificial respiration for an hour and a half. Five grains of morphia had been taken and retained three hours before she was seen. When we first saw her, there was only an occasional respiration, which soon entirely ceased. The stomach-pump could not be used, for we did not dare to intermit the artificial respiration long enough for it. No atropia and no electricity were used.

SUBCUTANEOUS INJECTION OF ERGOTIN IN VARIX.

Having observed the records (*The British Medical Journal*, April 27, 1872, from the *Berliner Klin. Wochensch.*, March 4, 1872,) of good results following the subcutaneous injection of ergotin in cases of aneurism in the hands of Von Langenbeck, Schneider, and Dutoit, Dr. Paul Vogt, of Greifswald, was led to try the remedy in varix of the lower limb.

The first patient on whom the experiment was made was a man aged sixty, who had suffered for several years from extensive varices of the leg. A solution of two grammes of ergotin was made in 7.5 grammes each of spirit of wine and glycerine, and a quantity containing 12 centigrammes of ergotin was injected at the proximal end of a varix more than two inches long, and as thick as a little finger, lying over the tibia. The injection was repeated every second day. In eight days the varix could not be seen, and in six weeks no trace was left. During the treatment, the patient went about, as usual. Another varix, of the size of a hazel-nut, lying on the outer side of the calf, was treated in a similar manner, with

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the same result. At the point where the injection was made there was some circumscribed infiltration, which gradually disappeared.

Several other patients in the Greifswald Hospital, some of them with vary large varices, have been treated with the subcutaneous injection of ergotin, with a surprisingly good result.

Dr. Vogt believes that the ergotin causes contraction of the muscular coat of the arteries, so that the flow of blood into the dilated vessels is hindered; that it also produces contraction in the veins; and that the local infiltration following the injection may have some effect by the compression which it exercises.—*Philadelphia Medical Times.*

REPRODUCTION OF THE MEMBRANA TYMPANI.

A case of reproduction of the membrana tympani is recorded in the Transactions of the American Otological Society, by H. N. Spencer, M. D., of St. Louis, Mo. The patient, a boy aged eleven years, became affected ten years since, at one year of age—after an attack of measles—with an acute inflammation of the middle ear, resulting in perforation of the membrana tympani, for which nothing was done. At the time of application for treatment, there was found a caries located at the point of contact of the ossicula with the tympanic wall. The ordinary treatment was pursued. The result has been a complete recovery of healthy condition in the parts, with restoration of the membrana tympani in each ear. The membrane has the appearance, in texture and color, of the normal membrane, but without the light spot.—*Medical Record.*—*Virginia Clinical Record.*

SWALLOWING INSOLUBLE BODIES BY CHILDREN.

In the *Philadelphia Medical Times* of April 15, Dr. Packard records two cases in which insoluble bodies were swallowed by children. The same journal of the 1st of June contains a letter from Dr. M. O'Hara, in which that gentleman says:

"I have recently had under my care two similar cases, differing from those reported by Dr. Packard only in the length

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of time the foreign bodies were retained. In one case a safety diaper-pin was passed—maliciously, there was reason to believe—into the œsophagus of a child, where it remained until, suffocation being imminent, it was pushed down into the stomach by the child's mother, who had previously attempted in vain to remove it through the mouth. The diaper-pin, which was of silver, gave rise to no irritation whatever during the whole time it remained in the digestive tract, the bowels continuing to perform their functions regularly. It was voided five months and three days after the date of the accident. In the other case, a child, whom I was treating for worms, passed a two-cent piece, which it had swallowed three weeks and three days before. In neither case was any special treatment instituted."

TREPHINING IN EPILEPSY.

In a paper entitled "Trephining in Epilepsy," Dr. Boutelle, of Boston, endeavors to lay down some rules of practice in a small and interesting class of cases. These are instances, twelve in number (which have occurred in the Massachusetts General Hospital since its foundation), of the trephine having been employed for the relief of epilepsy ensuing on fracture of the skull, with depression.

The clinical histories of these cases have been very similar —viz., a blow on the head, producing fracture with depression; recovery from the immediate effects of the accident; then, after an interval of health, varying from a few weeks to many years, epileptic or epileptiform seizures begin or continue, with longer or shorter intervals, but generally increasing gradually in frequency and violence.

Of the twelve operations performed during 1832–70, seven failed, while four were followed by cure and one by relief. In most of the fatal cases, death took place shortly after the operation, from acute meningeal and cerebral inflammation, accompanied by abscess of the brain or sloughing of the membranes. In four cases the operation was followed by a rapid succession of fits, succeeded by hemiplegia and coma. In

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three cases the dura mater was so adherent that it was unavoidably torn. It is to be observed also, that of the four reported cures, the histories of three of the patients continued only for a few weeks after the operation.

The following are Dr. Boutelle's conclusions, so far as this scanty material allows of any such being drawn:

1. The operation promises a fair chance of success, and, unless contra-indicated by an excessively feeble state of the patient, ought always to be performed.

2. It requires dexterity and the greatest caution on the part of the operator, owing to the fact that the membranes are frequently adherent to the depressed bone, and that the slightest laceration greatly increases the chance of death. There is also much uncertainty, before making the incision, as to the extent of the depression and condition of the parts.

3. The depression must be entirely removed, as any projection remaining would nullify the benefit expected.

4. The wound should be kept open to allow the freest possible discharge of pus.

5. The knowledge of the possibility of epilepsy in after life, in consequence of injury to the cranium, should make the Surgeon especially careful, in cases of recent fracture of the skull, to elevate every existing depression, and remove all fragments and spicula.—*London Medical Times and Gazette.*

[There have been several good results here in cases of this operation particularly by Dr. Briggs.—E.]

TREATMENT OF CANCRUM ORIS.

Dr. McGreevy (*British Medical Journal*) says: "Of all the local remedies or applications I have resorted to in such cases, I have never found any application so useful or so effective as hydrochloric acid. Neither nitric acid, nitrate of silver, nor chlorate of potash, nor any other remedy that I have ever tried or used, except hydrochloric acid, did I ever find to be of the least use to check cancrum oris. I have almost never found hydrochloric acid fail to check the progress of this

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dreadful disease at once, and bring on a most rapid and healthy action in the part. Nor does it cause so much pain or suffering to the little patient as one would suppose, seeing that the gangrenous spot is almost entirely without feeling at this time. This acid is easily applied to the ulcer by means of a feather or small camel-hair brush. I have cured many cases of cancrum oris by this means."—*Medical Archives.—Chicago Medical Journal.*

INJECTION OF AMMONIA AS AN ANTIDOTE TO CHLOROFORM POISON.

The efficacy of this method has been tried recently in Melbourne, with very encouraging results. A person, while under the influence of liquor, drank an ounce of chloroform in two doses, and became insensible almost immediately. An emetic of salt and water, which was poured down his throat without delay, caused him to vomit. The injection of liquor ammonia into the veins was decided upon. Half a drachm of liquid ammonia was injected into a vein in the arm, the strength of the injection being one part of ammonia to two parts of water. The good effect upon the pulse was rapid and marked, and, after an interval of twenty-five minutes, another half-drachm was injected. The improvement increasing, a third injection was made, after another interval of twenty-five minutes. After three-quarters of an hour, another half-drachm of ammonia was injected, bringing the total amount of *antidote* introduced into the blood to two drachms. The patient regained consciousness about midnight, and, with the sanction of his medical attendant, was removed, between seven and eight next morning, from a house of ill repute, where he had been staying, to his own residence. The deceased subsequently complained of weakness, and expired twenty-four hours afterwards. —*Medical Press and Circular.—Ibid.*

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MEDICAL.

BY W. L. NICHOL, M. D.

QUININE COMPARED WITH ERGOT.

It is well known amongst practical men in England, that sulphate of quinine has certain effects on the womb, of which it is well to be aware; for instance, that if given to young girls it is apt to make the menstruation painful and scanty. Dr. Angelo Monteverdi, of Cremona, has treated of this matter at length in a lately published treatise,* of which the following are the conclusions:

Bark and its preparations act first on the sympathetic, then on the spinal nerves. Thus it produces contraction of the muscular fibres supplied by the great sympathetic, and especially of the womb, bladder, intestines, and blood-vessels. Its effects depend on the dose, and on the condition of the organs acted on. It may restore relaxed organs to their normal state of tone; or if the tone of these organs be already sufficient, it may induce morbid and excessive contraction. This is shown by its action on the pregnant womb, and especially during parturition. It may, administered imprudently, cause abortion; but in case of languid and feeble uterine contraction it may accelerate child-birth, and cause the normal expulsion of the placenta.

Dr. Monteverdi believes it to be far preferable to the ergot, and less detrimental to mother and child. It takes the place of the ergot in all relaxed conditions of the womb—menorrhagia, amenorrhœa, and the like. It is the best preventive of puerperal fever, and the best remedy for its early stages. It is injurious in all cases of uterine excitation.

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* "Dimostrazione di una Virtu Medicamentosa della China." Cremona, 1870.

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These are the conclusions of Dr. Monteverdi, supported by many cases, and by abundance of argument. Without doubt he demonstrates the effect of quinine on the womb; but he fails to show that, for rapidity, certainty, and power of action, it is at all comparable to ergot as a parturient. Nevertheless, the hints here given, and especially on the possibility of causing dysmenorrhœa or abortion, are worthy the attention of the circumspect practitioner.—*London Medical Times and Gazette*, April 20, 1872.

THE RATIONALE OF A LARGE FEE.

Frederick Jäger, the celebrated oculist of Vienna, having operated with success for cataract on the old Servian Prince Milosch Obrenowitsch, received the princely fee of two thousand ducats, besides a present of a costly jewel for his wife. Some years afterwards he operated with equal success upon the other eye, for which, however, he received only one thousand ducats. Dining with the Prince some time afterwards, Jäger jocularly alluded to the difference of the two fees. "My dear Jäger," replied the old Prince, "it is natural enough that I should pay you the two thousand for a successful operation on the first eye, and only one thousand for that on the second; but if I had a third to be operated upon, I should most certainly have also given you two thousand ducats for the second operation."—*Ibid.*

LIQUEFYING DEAD BODIES.

A certain M. Donac has recently laid before the French Academy of Sciences a project for liquefying dead bodies, and transforming them into a syrup without color or smell. According to his calculations, a moderate sized man could be got into six bottles. The size of each bottle is not stated, but the *Paris Journal* appears charmed with the idea, and exclaims, "What an opening for the exercise of filial piety!"—*London Lancet.*

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PREDICTION OF SEX IN UTERO BY AUSCULTATION.

T. J. Hutton, M. D., Resident Physician to the Long Island College Hospital, Brooklyn, N. Y., contributes an interesting paper to the *New York Medical Journal*, from which we make the following extracts:

"The pulsations of the fœtal heart were first detected by M. Mayor, of Geneva, and in 1818 he published his discovery. For some time afterward the subject seems to have been forgotten, and, in being revived by Kergaradec, was practised up to a recent date simply for the purpose of determining pregnancy in doubtful cases. Within the past few years, however, the assertion has been advanced, by Tyler Smith and others, that not only can pregnancy, in its advanced stages, be determined by auscultation, but also the presentation, position, and sex of the fœtus, *in utero*. * * *

"All the difficulties and dangers of labor, all *post-partum* complications, instrumental deliveries, fœtal and maternal deaths, occur much more frequently in *male* births; the ratio of their frequency, as compared with the birth of females, is nearly as three to one. In *foreknowing* sex—if such be possible—may we not hope to anticipate, abbreviate, or prevent, these justly-feared accidents of the puerperal state?

"Again, any just means that shall prove a master-key to confidence and respect, any new acquisition of skill which will exalt the physician and his profession in the estimation of the people, must be worth acquiring. * * * In the present article, suggestive rather than exhaustive, I present to the profession the results of some observations in this direction, few in number, it is true, but made, as will be noticed, at widely different periods, and with one and the same result.

"The rule employed is a modification of those advanced in recent text-books, viz.: Fœtal pulsations, heard below a horizontal line, dividing the uterus into two equal parts, denote vertex presentation; above it, breech presentation; below this line, and to the left, first position; below it, and to the right, second position. When the fœtal pulsations number 144 per

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minute, it is a female; 124 per minute, male. And, as deviations from this rule, or average, will doubtless be encountered, I venture to add that a variation of *six beats per minute*, from 124 upward, or from 144 downward, will not endanger a diagnosis, provided auscultation be practised in the *ninth month of pregnancy*. And as a proof of the practicability and reliability of this rule, as a means of diagnosticating sex *in utero*, I submit the essential points from the clinical record of seven cases, delivered in this hospital, the only ones in which I had an opportunity of testing it, in which it was *the sole guide*, and without a *single failure*.

* * * * * *

"In conclusion, I would add that, while these observations open up an interesting field of inquiry, and, so far as my observations have gone, have been *uniform in result*, still, from their small number, I only claim value for them as they confirm the observations of others. The cases were most carefully analyzed, and I submit them to the profession, more for the purpose of attracting attention to the subject than for any supposed value that may be attached to the limited number of the observations themselves. *Uniformity* in the cases observed is of value, especially when they confirm the observations of others."

IMPREGNATION WITHOUT RUPTURE OF HYMEN.

C. R. Francis, M. B., Deputy Inspector-General of Hospitals, writes as follows to the *Indian Medical Gazette*, December 1, 1871:

"A few years ago, when officiating as civil surgeon in one of the stations of the northwest provinces, I was asked to prescribe for a lady whose prevailing and prominent symptom was *sickness*. It was unceasing. Exaggerated in the morning, it continued throughout the day. At night only, when my patient slept, was relief experienced. She had been married a few months. I pronounced her to be pregnant. 'I can't believe it,' said the husband. 'Impossible,' said the wife. 'Why?' I asked, 'can anything be more likely?' (The lady

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was twenty-eight years of age, well nourished, and in good condition; and the husband was young and vigorous.) I founded my diagnosis upon the condition of the nipple and the circle surrounding it, in connection, of course, with other circumstances. Sufficient time had not elapsed to allow of my ascertaining anything satisfactory from any kind of *examination.* The couple were quite satisfied that they were right, and that I was wrong. A *dhaee* had told the lady so. I was but a youngster in those days; and the snow had not appeared upon the top of the mountains. It was, therefore, a delicate subject for me to talk about; so I took 'Gooch on some of the Diseases peculiar to Women' out of my library, and, marking down the passage where the dissecting-room scene is described in which John Hunter declared that a fœtus would be found in the uterus of an apparent virgin, although an inquisitive student had announced the existence of a hymen—(Hunter had based *his* diagnosis upon the state of the breasts),—sent the book to the husband, and asked him if that was not the condition under which he believed his wife to have remained unimpregnated, viz., *the existence of an unruptured hymen.* His reply was in the affirmative. Shortly afterward, upon my recommendation, the lady was sent, for change of air, to a neighboring station; and eventually she went to the hills, where, at the end of the ninth month, she was duly confined. I believe that the hymen remained unruptured to the last, as the medical officer who attended her wrote to me to say that there was some kind of membranous impediment to the birth, but which finally gave way as the head advanced. Such cases are not common, and should, therefore, be recorded when they occur."—*New York Medical Journal.*

CHLORAL IN THE TREATMENT OF VENEREAL ULCERS.

Dr. Mancesco Accettella, of Italy, says: "In sixty-nine cases, in which I applied chloral *topically,* the following results were obtained: Seven ulcerated and obstinate abrasions healed in nine to sixteen days; forty-nine soft ulcers, in from eight to fourteen days; three soft ulcers, complicated with

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diphtheria, in eighteen to twenty-nine days; five soft ulcers complicated with phagedæna, in twenty-four to thirty-two days; five primitive infectious ulcers in fifteen to twenty days. The solution employed was as follows: Chloral hydrate, 75 grains; aqua dist., 5 drachms. This applied with a camel-hair pencil to the ulcerated surface, is without discomfort to the patient, and after two or three applications the most healthy granulations will appear. A more diluted solution should be used for abrasions and simple ulcers. Venereal therapeutics may welcome *chloral*, as a topical remedy *par excellence*, in the gravest forms of ulceration, the phagedænic."—*Medical Press.—St. Louis Med. and Surg. Jour.*

BLISTERS IN PNEUMONIA.

Dr. C. J. B. Williams, the distinguished English authority, makes use of the following language in speaking of the treatment of pneumonia: "My experience has taught me to put great faith in large blisters, both in asthenic pneumonia and in bronchitis, and I am confident that I have seen many lives saved by their means. Instead of being lowering, they give a salutary excitement to the circulation, and the copious serous discharge which they produce from the skin, tends to relieve the congested lung without wasting the red blood that is so needed to sustain the functions. Small blisters tease as much as large ones, and are far inferior in the relief they afford."—*Ibid.*

COLD ABLUTIONS IN FEVER IN PUERPERIO.

Dr. Meding (*Arch. f. Heilk.*, 12, 3, *Rundsch.*, August, 1871,) resorted, in two cases of a high grade of fever in puerperio, to repeated cold ablutions, and is especially pleased with the result. The patients had a temperature of 41.5, and one case was highly somnolent. "As long as the ablutions were repeated regularly every hour, the temperature fell, regular sleep followed, and the mind became clear. Generally, however, when the ablutions were omitted, the temperature again rose, to fall again after energetic ablution. He is further convinced

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that the temperature may be more rapidly diminished when all medical treatment is omitted." Of the author's cases, the result, a recovery, is given in one instance only; his diagnosis in this case was "a typhous form of puerperal fever."—*Cincinnati Lancet and Observer.*

THE IMPORTANCE OF CLEAN BOTTLES.

Mr. F. J. Bailey, L.R.C.P., reports, in the *British Medical Journal,* a singular case of poisoning. A child, two weeks old, was ordered dill-water. This, when obtained, was put into a bottle which had previously contained nepenthe. A label was on the bottle with that name. The bottle was empty, whatever nepenthe there had been in it having dried up, and left a deposit of opium on the sides and bottom. The dill-water dissolved the opium; and, upon analysis by Dr. Campbell Brown, was found to contain morphia and meconic acid, in a proportion equal to about twenty-four drops of laudanum. A teaspoonful was given to the infant about 11 P. M.; he died about 4 P. M. the next day. He fell asleep immediately upon the dose being given. His breathing was noticed to change about one hour afterward. Convulsions and narcotism came on.—*Ibid.*

CAUTIONS TO BE OBSERVED IN THE ADMINISTRATION OF CHLOROFORM.

The following is extracted from a clinical lecture by J. Eric Erichsen, Senior Surgeon to University College Hospital:

"Never give chloroform without first thoroughly loosening the dress; if possible, not within four hours of a meal; the head should be moderately raised; the pulse, respiration, and color of the face, must be carefully watched. As regards the occurrence of the rigid spasm already adverted to, I do not think that sufficient attention has been directed to this condition. A patient with an enfeebled heart is then in a most dangerous, even critical, state; the chest-walls are fixed, the lungs are filled with chloroform-vapor, which becomes diffused but cannot escape; the pulmonary circulation is obstructed,

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and the pressure on the right ventricle rapidly increased. Let the patient partially recover, then give it again, slowly; watch for any blueness around the mouth, etc. If the pulse fail, draw forward the tougue with forceps, and set up artificial respiration at once; but prevention is the main point. When there is well-marked asphyxia, artificial respiration is most useful, and generally successful; but in these cases of so-called 'cardiac syncope,' it is generally useless; the heart has been barely able to meet the ordinary requirements of the system; it cannot recover lost ground; it gives in, as it were, at once." —*British Medical Journal*, June 8, 1871.—*Philadelphia Medical News.*

GUARANA AS A REMEDY FOR SICK HEADACHE.

The Guarana (*Paullinia sorbilis*) is a favorite remedy in France for sick headache and various forms of neuralgia, and is gaining some favor in Germany and in this country. Recently Dr. Wilks and Dr. Latham have called attention to it (in the *British Medical Journal*, April 20 and 27, 1872,) in England.

"The seeds, roasted, bruised, and pressed into cylindrical masses, constitute the guarana paste, which, when finely pounded, is then known by the name of Pauillinia powder. This is light brown in color, has an odor faintly resembling roasted coffee, and a bitter astringent taste. It contains, in addition to empyreumatic oil (developed by the process of roasting) and tannic acid, guaranin, a substance identical in composition with caffein. The large proportion of tannic acid in its composition renders its action very efficacious as an astringent; whilst, owing to the guaranin, it has much the same effect on the nervous system as tea or coffee."

It is given in powder, in doses of ten to fifteen grains or more, once or oftener in the day, either mixed with water or sugar. In some cases it relieves very promptly. Dr. Wilks says, in some instances it acts like a charm, in others its effects were doubtful, and in others it entirely fails.—*Ibid.*

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BREAD MADE WITH SEA-WATER.

M. Rabuteau calls attention to the importance of this article. In the first place it is very pleasant eating, also increasing the appetite and stimulating digestion. On board ship, bread so prepared has been found very conducive to the preservation of health during long voyages. It also exerts important medicinal effects, especially in dyspepsia. In phthisis and in scrofula the author states it is a powerful adjuvant.—*Medical Times and Gazette*, from *L'Union Medicale*, January 6, 1872.—*Ibid.*

XYLOL.

This is the name of a medicine reputed to be valuable in *small-pox*. Dr. Nagel says:

"I have administered xylol in eighty-one cases of small-pox; among these were eight children under two years of age—six of them not vaccinated; eleven children from two to ten years of age—four of them not vaccinated; twenty patients under twenty-five years of age; the others were above that age, and one was aged sixty. Of all these eighty-one patients (thirty-four of whom had the small-pox in its worst form) only four died—one child, three weeks old, not vaccinated; another child, nine months old, not vaccinated, and two adults of about thirty-two years of age. I conclude, therefore, that,

"1st. Xylol produces positively better effects in the treatment of small-pox than any other remedy known.

"2nd. Xylol positively mitigates the severity of the disease, accelerates the recovery, and prohibits the hitherto great mortality.

"3rd. Xylol, administered when a contagion is suspected, and before the eruption of the disease, does not prevent the breaking out of small-pox, but facilitates the elimination of the disease.

"Under these circumstances, I can do no less than most warmly recommend the administration of xylol, and I shall not fail to communicate my further observations.

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"Xylol, or xylene, a hydrocarbon, $C_8 H_{10}$, was first separated from coal naphtha by Dr. Hugo Muller. It is obtained by fractional distillation, until a distillate is obtained of about 140° C, boiling point; this is mixed with sulphuric acid, which dissolves xylol; this acid is decomposed by dry distillation, and the xylol thus obtained is further purified. Its specific gravity is 866."—*London Pharmaceutical Journal.*

The dose of xylol, as a prophylactic, is ten to fifteen drops once a day. During the progress of the disease the same dose is given four times a day. As much as a teaspoonful has been taken at a time without serious results. It is administered in wine, syrup, or water. Raspberry syrup is especially recommended. The article manufactured by E. Schering, of Berlin, is the one that was used by each of the physicians whose names have been mentioned. It is sold at one dollar a bottle of one ounce.—*Western Medical Advance.*

INCURABLE VOMITING DURING PREGNANCY.

Dr. Scipio Giordano, of Turin, in a pamphlet on the above subject, speaks of those distressing cases of irrepressible vomiting which occasionally are witnessed in pregnancy, and which may, and often do, lead to a fatal result. The only remedy worth mentioning in such cases, he adds, is the removal of the fœtus from the uterus. Where the fœtus is nearly arrived at term, the sponge-tent may be used to dilate the uterine cervix. But the bringing on of abortion is a more difficult question, and many practitioners who would not hesitate to produce it in cases of deformity of pelvis, would refuse their sanction in these circumstances. He thinks that when a consultation with two *confrères* has decided on the necessity of something being done, that ought to suffice. But as to the means, this is by no means so easy a question, although Velpeau and Cazeaux will have it to be very easy. Abortion is more difficult, indeed, the nearer the period of conception may be. Cauterizing the whole neck of the uterus with a thin pencil of nitrate of silver has succeeded in his hands.—*The Doctor.*

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NITRATE OF SILVER IN CROUP.

MM. Mouttet and Rosiere, of Montpellier, report that they have cured croup, when tracheotomy was refused by the parents as a useless cruelty, by repeated insufflations of powdered nitrate of silver. The application was at once followed by the detachment and expulsion of false membrane, and was repeated a quarter of an hour after with a similar result. Three or four hours later, another insufflation was followed by so much relief, that hope was entertained, and the child from this time made a steady recovery.—*Medical World.*

INTUSSUSCEPTION.

Alfred W. Taliaferro, of San Rafael, reports a case of invagination of the intestines that was relieved, after all other means had failed, by an injection of a solution of carbonate of soda, followed by a solution of tartaric acid. Immediately on the withdrawal of the pipe of the syringe, after the injection of the second solution, a large sponge was pressed against the anus.—*Western Lancet.*

TINCTURE OF IODINE IN VOMITING.

Schneider, of Offenburg, administered tincture of iodine in doses of ten drops, on sugar, thrice daily, to a patient who was troubled with salivation and vomiting after intermittent fever. Although the vomiting had proved rebellious to all other treatment, it yielded to tincture of iodine.—*The Doctor.*

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Editorials, Reviews, Etc.

"THE TIME HAS COME."

OUR friend of the *Boston Medical and Surgical Journal*, in his issue of June 27th, under the above caption, quotes "some very plain truths" from the *Philadelphia Medical Times*, upon the necessity of "immediate reform, regardless of consequences, in our plan of medical education." Our Boston contemporary then quotes, in contrast, what we have said on the same subject, under the heading of "THE AMERICAN PLAN," in our June issue. He tacitly acknowledges that the "new departure" cost Harvard, the first year, one hundred and five students, but he sneers because we say that Harvard will return to her old plan, and quotes derisively our idea of the continuance of a plan that made him and the Harvard teachers, by saying: "The Harvard Faculty is not content to rest satisfied with a standard which, for so long, has been 'eminently American.'"

Now we wish to say that we concede this to be exclusively the business of Harvard, and consequently none of ours. We have not one word to say against Harvard, and never had; for, unlike the *Times*, we have never regarded Harvard a "third rate" concern, and located in a city "signally deficient, as compared with New York and Philadelphia, in clinical and pathological material." Upon the contrary, we have always regarded the Medical Department of the Harvard University as at least equal to the medical colleges of New York

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or Philadelphia, and the great city of three hundred thousand inhabitants, as capable of furnishing enough clinical and pathological material for a thousand students a year; nor is any editorial the *Boston Medical Journal* can produce, however enormous the magnitude of its inanity, to abridge our respect for that institution. Nor shall any one, not even the editor of the *Boston Medical Journal* himself, go farther than we in the admiration of the enterprise and heroism of the managers of Harvard, believing, as they did, in their recent "new departure," for we feel certain that they meant, honestly, to benefit the Profession of Medicine; nor has the consequent defeat awakened any other emotion in our soul than that of regret. As to the logic of the *Philadelphia Times*, that Harvard has risen, from this public repudiation, from a "third rate" to a first class institution, and which the Boston editor triumphantly and indignantly throws in our face, we have only to say that if it suits Boston, we have no right to object, but, as Rush said, "to think is to theorize," we have a sort of a theory that the process of ratiocination which leads to such a result, must have illumined the conception of the poet in producing the line—

"Downward to climb, and backward to advance."

As the failure of Boston inures to the benefit of Philadelphia, the latter can afford to praise every "departure," new or old, of the former, that results in advancing backwards.

The *Boston Journal* says, rather pompously, that "it would be ungracious to suggest that the standard of medical knowledge, indicated by our contemporary, would do for his latitude." Not at all, for you would say the truth, and that would not hurt any one. It *will* do finely for our latitude. But our contemporary is as dull in his estimate of that "standard" as he is in his conception of its approaches. Let us say to him, once for all, that those who attain to the glory of this standard, must pass through the upper clouds and bathe their plumage in the sun—must go where Drake and Dudley and Yandell and Gross and McDowell and Pope, and a

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host of others went. Among those who come up to the standard we indicate, we will not ungraciously say that we should not expect to find the editor of the *Boston Medical and Surgical Journal*, to whom we may say, in parting, that the editorial that occasioned him so much disgust elicits, in a letter now before us, from one of the most learned, experienced, and celebrated medical writers and teachers, in the United States, the following sentence: "I like your editorial on 'The American Plan' for its truth and vigor."

As to the *Times'* notion of "immediate reform," we all know, except the editor of the *Boston Medical Journal*, just exactly what estimate to put upon it. We wish it understood that we have no objection to the plan so long pursued and advocated by Dr. Davis, of Chicago, and which Harvard recently adopted. For a long time we have been persuaded that the plan is not in harmony with American ideas, and that it cannot succeed; and notwithstanding the pretension of Boston to something more than that which is "eminently American," we put it upon record again, that she "will return to her old way,"—and we do not mean to be ungracious when we add that this renewed prophesy is based upon a knowledge of her "latitude." Davis will go on to the end, "regardless of consequences," but Harvard will not—"Harvard will return to her old way," and her experience will give *eclat* to our views upon the "American Plan."

To go from medical schools to the philosophy of government, and to illustrate the inquiry into one by observations upon the other, we can show the same two classes of ideas exist, and constitute respective parties. Burke says—"Government is a contrivance of human wisdom to provide for human wants. Men have a right that these wants should be provided for by this wisdom." Now the same may be said, and *is* said, of medical schools. Medical schools are a contrivance of human wisdom to provide for human wants. Men have a right that these wants should be provided for by this wisdom. The wisdom of the people, in a free government, provides for all the wants of themselves, religious, political,

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and medical. Now, says the *London Times*, who embodies another class of ideas, "What sort of a contrivance has our wisdom made? A contrivance of which its highest merit is that it candidly avows its own impotency. It does not provide for our wants, it does not fulfil its function, and it will always remain what it now is—it will be a contrivance that contrives nothing." And this is the British government—a government contrived by "the most logical people in the world." Representatives of two classes of ideas look upon this contrivance. Both know it is unchangeable. One says, "Yes, a contrivance of human wisdom for human wants,"—and so makes the best of it. "To be sure," says the other, "a contrivance that contrives nothing," and so makes the worst of it. Which is the happier?—the hopeful or the faithless? If rebellion comes, which promotes it, the hopeful or faithless? —he who believes it the best we can do, or he who is "determined not to rest satisfied"? We have known people as much agitated as our friend, or more so, who, not resting satisfied, were compelled to rest dissatisfied.

We have tried to make our contemporary and others understand that, while we advocate a standard of medical education higher than any one, we do not believe that ours or theirs is to be reached through the schools, even if the schools could agree upon a common method of instruction, which they never will. Our contemporary plants his standard *in* a medical college; we plant ours outside. We want practitioners of medicine to have all the learning in the world—to be the noblest and best of men; but we believe, in our soul, that colleges of no sort will produce the former, nor churches of any kind the latter.

Between the writing of the last two sentences, away up in the mountains of Tennessee, we have read a letter from one of the most learned physicians—a practical surgeon—in the United States, just thirty years of age. He attended our college here during the war, one session, having but one lecture a day! He graduated with as little college aid as any man ever had, that had any. Think of Jefferson Medical College mak-

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ing Gross forty years ago, when its shell hadn't hardened! If it did, why did it not, while its hand was in, make a few more of the same sort? Every man's memory will serve him with instances. "I graduated in a school where Dr. Drake would not have been admitted as a student." This used to be said by Moorehead, at Cincinnati, then Professor of Medicine in the Medical College of Ohio. "I," he would continue, "graduated at Edinburgh, where to enter, you must be a graduate in the Arts." A miserable rushlight stigmatizing the sun!

We assert, without the fear of successful contradiction, that medical colleges are spring-boards, and for a genius, and a young man of mark, *one regular medical college is as good as another*, for he will leap from any into the skies; and for the dunderpate one is as good as another, for from any he will alight, like the clown, on his haunches (the seat of his brain), in the mud.

Recently Harvard University bestowed the title of L.L. D. on a very worthy and meritorious gentleman, and one who had done the state some service, yet ignorant of all arts, sciences, and literature, and who no one ever accused of being a thinker, writer, or statesman, and, outside of horse-talk, profoundly ignorant; who, in a state-paper of recent date, speaks of "former precedents," in contradistinction, we suppose, to present precedents, and who, with illiterate people generally, employs the past participle "done" for the preterite "did," as "I done the best I could under the circumstances." We hope our friend will excuse this allusion to an institution which cannot rest satisfied with a standard "eminently American," but we hope is satisfied in exciting the blushes of all educated America.

All of our schools, good, bad, and indifferent, if there be any but the first, in looking over their catalogues,

> Can point you out in all their classes,
> With "these are heroes, and those asses;
> And these, to self and nature true,
> Have done the best that they could do—

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Have kept, with steadiness of mind,
An eye on ills of human kind,
And fought them all, on every field,
With face to face, and shield to shield,
Till, being mortal, they too fell,
The ebbing tide of life to swell.
But death could not the hand relax
That held the trenchant battle-axe,
Nor strike, from fallen warrior's head,
The garlands which had panoplied
And sat in rich profusion there,
The wreath of many a grateful prayer."

"Latitude!" Let us tell you, friend and fellow-citizen, that the latitude of the times is flunkeyism. A Philadelphia medical journal sounds and proclaims "immediate reform in medical education, without regard to consequences." This is to apply to doctors in the egg; but reform, immediate or remote, concerning those fledged and on the wing, and especially *in position*, keep shady—breathe easy! We all know that, after terrible exposure, a diploma-selling association at Philadelphia has been abated by law, as a nuisance and an outrage, and, as the late George D. Prentice would have added, a d——nation, —but we will not. And we can imagine how Philadelphia doctors, of the teaching persuasion, shed sunshine on each other's faces upon meeting afterwards, as well they might, for the thing abated by law was an infamous stench in the public nostrils.

Well, one of the chief medical men of Philadelphia, author of a standard medical work, having a female patient in all the horrors of strangulated hernia, in the midst of distinguished surgeons, permits her to suffer all night, at the imminent risk of her life, for the return from the country of one of the above association to operate on her, thus aiding and abetting, and giving comfort to the aforesaid abomination. The case was heralded abroad by the said associatian, to show that AUTHORS were on terms with them, and all that. We wrote to a medical editor of Philadelphia—not of the *Times*—calling his attention to it, but he forgot to notice such small things as that.

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Now men who can permit such among them, unrebuked, when they have been assigned to the medical watch-towers, ought not to be surprised, when they get on their stilts, and begin to talk largely of "immediate reform" at the other end of the line, that honest men should laugh in their faces—laugh them to scorn!

Our friends are a hundred years behind the times. Cullen and Boerhaave could draw from all over the world, and it "payed" students to go to them, for these names were household words throughout the land, or all lands. Now how many doctors, even, know who is Professor of Medicine at Harvard, at the University of Pennsylvania, or the University of New York. We have asked two distinguished physicians in the last hour, the names of the gentlemen who occupied these Chairs, and neither of them knew. Now every doctor in the country knows Dr. Davis, and if any living man can make his plan succeed, he is the man. Whoever would desire that plan, would naturally go to him, and as naturally go away from Harvard. Davis, too, is in the right "latitude," in the latitude of magnificent distances, magnificent prairies, magnificent men, where costiveness is unknown, and where spectacled eyes and barefooted heads won't pay. God makes a head as big as a half-bushel, and fills it with brain of the right texture, then puts a heart in the chest of the same man, that can deluge it with blood, as a fire-engine deluges a burning house with water, fills his belly full of living coals, and leaves him to make himself a man, and he will do it—he will go like a locomotive—get off the track! He may make a college, but a college will never make him.

Latitude!—Will do for our latitude! A catalogue from one of the largest medical colleges in the East, now before us, is positively ignorant of the number of States in the Union, or their names! The patronage from the South sweeps all, and one State is made out of whole cloth. We will not "ungraciously" say this does very well for that latitude.

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Original Communications.

PUERPERAL CONVULSIONS.

VIEW OF TWO HUNDRED AND NINETY-SEVEN CASES.

A Paper read before the State Medical Society, April 2, 1872.

BY JOHN W. RICHARDSON, M. D., OF RUTHERFORD CO., TENN.

[CONTINUED FROM THE AUGUST NUMBER.]

I have now presented hastily, and fairly, I hope, the views of the different authorities representing what may appear to be very different conclusions as to the causes and pathology of eclampsia puerperarum; and yet I imagine that much of this

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discrepancy may be harmonized when we thoroughly dissect the whole subject, and present all of its deranged parts in their natural order.

Facts must be admitted, whether we are able to explain them or not. The oldest of us remember well when it was the custom of many women to be bled, once, twice, or even oftener, during pregnancy, to relieve them of fullness of the head—vertigo, and blindness—and how difficult it has been for us to convince them that moderate exercise and purgatives will do as well. Until very lately, comparatively speaking, all the great masters agreed in prescribing blood-letting as *the* remedy in puerperal convulsions, no matter what the condition of the woman, only, if she be feeble and anemic, that opium and cordials may be administered if venesection failed, as it often did, to arrest the convulsions. *Then* it was believed that the cause of the convulsions was centric—cerebral hyperemia—and that bleeding was the sure and speedy remedy. Sometimes the convulsions would cease, or be mitigated; at other times they would grow worse and worse, and venesection would be repeated again and again, until it could be carried no farther, "to protect the brain from injury." Venesection, to the farthest extent compatible with the life of the woman, was the remedy to arrest the convulsions and to protect the brain from congestion consequent upon the convulsions; this, with purgatives, and delivery as soon as possible, was the treatment. With some, however, after having bled as much as the patient could bear and live, the convulsions still recurring, opiates were given.

When Prof. Meigs translated Columbat's work (1845), he expressed pleasure at Columbat's bold and vigorous employment of the lancet in puerperal eclampsia, and thought that he had gone far enough, though not to the extent of Dewees, Chapman, and others in this country, who would take from forty to sixty ounces from a healthy young primip, provided the recurrence of the convulsions should serve to show that the hyperemic state of the brain, leading to the first convulsion, was not overcome by the first bleeding of twenty or

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thirty ounces. He was not pleased at Columbat's abjuration of opium, but thought, after venesection and purgation, that opium might be given freely. Professor Meigs approves the opinion of Puzos, that, "If the blood-letting and other remedies do not calm the convulsions, the woman should be delivered as soon as possible." And after remarking that *post mortem* examinations generally revealed no lesions to explain the violence of the disorder, he concludes that the disease is one of cerebral excitement, from hyperemia, and from sympathy of the brain with the irritated organs below; and says, "what, then, could be more reasonable, after depletion and evacuation, than the exhibition of full doses of the anodyne, the only one that can be expected to remove from the brain its excessive perceptivity of distant irritation." The removal from the brain of its perceptivity of distant irritation is an important practical suggestion, and leads to the use of a class of remedies which may not only remove this excessive perceptivity, but which may do more—*prevent it entirely.* If the latter thought be true, what a blessing will it be to puerperal women! But we are not ready to examine this suggestion yet.

Dr. Robert Lee, in his lectures (1843), says—"Blood-letting is certainly the remedy in plethoric, robust, young women, to the amount of twenty or twenty-five ounces—purgation, mustard, &c.; but that profuse and indiscriminate blood-letting cannot be practiced with impunity in this disease."

W. Tyler Smith (*London Lancet*, June, 1845,) says—"The action of blood-letting on the spinal marrow is greatly modified by the condition of the circulation. In fullness of the vascular system it is the most powerful sedative of spinal action we possess. In the simple forms of the disease, where the convulsions depend on stimulation of the spinal marrow by excess of blood, on the mechanical pressure exerted by the blood on that organ, together with the counter-pressure of the distended brain on the medulla oblongata, venesection is the grand remedy—curative in its action on the spinal marrow, and preventive in its action on the brain. But when the irri-

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tation of the uterus, the rectum, or the stomach, is in part excitor of the convulsion, bleeding alone cannot be relied on. It may, at first, diminish the impressibility of the central organ, rendering it less susceptible of the incident irritation; but if persisted in to a large extent, without the removal of the eccentric irritation, it becomes, in the end, positively injurious, by increasing, instead of diminishing, the excitability of the spinal marrow."

He advises cold to the head and spine, and says that "the effects of opium, in puerperal convulsions, depend on the state of the circulation,"—that "in convulsions, with a full state of the circulation, it is a stimulant to the spinal marrow, while in convulsions, with anemia, it is distinctly sedative." That "in plethoric or inflammatory conditions it is always dangerous, while in anemia and debility it may always be used beneficially."

Prof. Murphy (*Medical Gazette*, February, 1849,) recognizes two distinct kinds of convulsions, the hyperemic and anemic; active depletion, &c., for the former; and says that "opium, as a remedy in convulsions, has met with good and ill success; it has been highly praised, and as strongly condemned." This apparent opposition in the experience of its effects may, he thinks, be reconciled. "Opium may be given very improperly when it is attempted to control, by its influence, the paroxysms of hyperemic convulsions. So long as the exciting cause of the fit is in active operation, a kind of struggle goes on between the excitant and the remedy, that generally ends in a great increase of severity in the convulsions; but when opium is given in the convulsions of debility, it acts as a stimulant to an exhausted nervous system, and arrests the fits. Stimulants, such as camphor, ammonia, wine, brandy, &c., are useful on the same principle as opium."

He rather deprecates hasty delivery, in both the sthenic and asthenic forms of convulsions, and thinks it may be even more dangerous in the latter than in the former; yet, under some circumstances the forceps may be used. If the head of the child is impacted, the perforator and crotchet may be used in-

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stantly, as the child is generally dead, but he cautions strongly against turning.

In his treatment of convulsions produced by morbid irritation of any other of the organic viscera (eccentric causes), he gives the usual remedies to relieve the organ that is the primary centre of irritation.

Let us drop down two decades, and see what we shall read. Prof. Henry Miller, in his *Principles and Practice of Obstetrics* (1858), says—"Blood-letting, then, is futile as a remedy for puerperal convulsions; by which, to speak more precisely, I mean it has no power to arrest them. It is nevertheless of great value, and must be considered quite indispensable as a means of protecting important vital organs, particularly the brain, against the dangerous congestions which are consequent to the convulsions, as evinced by the swollen veins and turgid features during the paroxysm."

He cautions his readers against *excessive* bleeding—refers them to a paper of Dr. Denny, of Ellicot's Mills, Maryland, which may be found in the *American Journal of the Medical Sciences*, vol. xix., and says—"From the very nature of the disease, and the circumstances in which its attack is made, we should expect that there can be no security for the mother, except by delivery." He advocates speedy delivery by forceps, when it can be done early and safely; but he rather advises craniotomy whenever the mother is in fearful danger, because the child is usually dead, and this operation can be done before the forceps, or turning, can be used. He says—"Nothing so effectually controls convulsions as chloroform; and there is reason to believe that anæsthetics will be found to be the best remedy for puerperal convulsions."

Prof. Miller quotes Dr. Churchill as saying that "Anæsthetics, administered so as to produce insensibility and calm the convulsions, judging from the cases then recorded, appeared to be a most valuable and successful remedy." He refers to Channing, of Boston; Mr. Turner, of Mansfield; Dr. Keith, Mr. Morris, Dr. Shekleton, Dr. Aldhill, M. Braun, Mr. Meiss-

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ner, and Mr. Bolton. The last succeeded with chloroform after bleeding and opium had failed.

Dr. Wiltshire (*Practitioner*, 1870,) says—"In chloroform we have an agent capable of arresting and keeping in check the hideous convulsions which might, of themselves, cause death."

Dr. Philips (*Guy's Hospital Reports*, 1871,) reported eight cases of puerperal convulsions in which recovery followed the administration of chloroform by inhalation, and concludes his paper by saying that "Bleeding has no claim to be regarded as a remedy for puerperal convulsions," and that "in a majority of cases, at least, if seen at an early period of the attack, it is unnecessary."

That "bleeding is often injurious, by predisposing to various puerperal ailments, by retarding convalescence, and sometimes by increasing the violence of the paroxysms." Also, that "the present diminished mortality is probably chiefly due to the less free depletion which is now practiced."

That "the chief reliance should be placed on chloroform, which prevents the recurrence, or diminishes the violence, of the paroxysm."

That "in mild cases it is sufficient to keep the patient slightly under the influence of chloroform in the intervals, more being given when indications of a fit are seen." But that "in some cases the patient should be kept, for a time, uninterruptedly under its influence."

That "if convulsions have already produced much pulmonary congestion, it is beneficial to draw a few ounces of blood before administering chloroform," and that "generally, it is advisable to lessen the tendency to cerebral congestion by the application of cold to the head."

That "it is rarely necessary to interfere with labor before the os uteri is dilated, or in those cases where the convulsions precede labor"; but that "it is usually expedient, in second stage, to complete delivery, due regard being had to the condition of the uterus."

Henry Rudge, Esq., (*Association Medical Journal*, 1853,)

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speaks highly of chloroform, which instantly arrested the convulsions, as by magic, after a few inhalations, in a patient with twins—one of the children delivered with forceps; mother and children did well.

Frederick Clowes, M. R. C. S., (*London Lancet*, January, 1866,) relates a desperate case of convulsions, at the end of the seventh month of pregnancy, in charge of himself, Dr. Gough, and Dr. Sympson, in which the patient was kept uninterruptedly under the influence of chloroform for eighteen hours, when she awoke in a perfectly natural state, and was prematurely delivered of a dead child. Mother recovered.

Dr. Hall Davis, Middlesex Hospital (*Lancet*, 1867,) reports three cases of convulsions—one plethoric, without albuminous urine, in which the convulsions were arrested after withdrawing twenty-five ounces of blood. Two other cases, not plethoric, one with urine largely albuminous, and the other with no albumen, were both treated successfully and rapidly with chloroform.

Dr. Holland (*Lancet*, 1871,) reports two cases—one plethoric, the other anemic—"treated by manual dilatation of the os uteri, and instrumental delivery (craniotomy)." Both women recovered; the former bled about one pint—the latter was not bled.

Dr. Bell (*Lancet*, 1872,) reports a case "illustrating, in a marked degree, the expediency of emptying the womb as soon as possible. Membranes were ruptured; a *large quantity* of liquor amnii passed off, relieving the convulsions; and as the os was easily dilated, the forceps was used, and a fine living child delivered."

Dr. Wiltshire (*Anstie's Practitioner*, November, 1870,) reports on the value of chloroform, and Barnes' air-bag dilators, and thinks if physicians knew the value of chloroform, as a therapeutic agent in eclampsia, they would seldom ever attempt to treat a case without it.

Dr. L. P. Yandell, Sen'r, (*American Practitioner*, December, 1871,) contributes an interesting paper on convulsions, in which the causes and treatment of eclampsia puerperarum are

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fairly considered, and several cases reported in illustration of the usual practice.

I have lately read two interesting articles on these convulsions, in the *Transactions of the Wisconsin State Medical Society*, one by Dr. L. G. Armstrong, of Boscobel, and the other by Dr. Wilbur, of Mineral Point.

Dr. Armstrong believes there are cases of too much blood, constituting well-marked plethora, and also cases of serous plethora, in which albumen appears in the urine. That all cases of puerperal convulsions are attended with albuminous urine; but that all cases of albuminous urine are not attended with eclampsia. He believes in uremic poisoning—that the causes of eclampsia are multiple, and that no one remedy will be the best remedy for all cases. He places venesection at the head of the list of remedies, to be followed by chloroform, cathartics, and counter-irritants.

Dr. Wilbur associates the convulsions with congestion of the kidneys, albuminuria and uremic poisoning. He looks upon cases of puerperal convulsions as cases of uremic eclampsia—that the poison in the blood may act on the brain, producing coma; on the spinal column, causing convulsions; or on the cerebro-spinal centres, causing both coma and convulsions. The remedies are chloroform and eliminators of the poison.

Dr. Gickie, Fellow of Obstetrical Society, London, reports a case illustrating the good effects of chloral hydrate, given in forty-grain doses. Only two doses were given, when quiet and long sleep supervened. This was after delivery.

In the New York *Medical Journal*, March, 1871, two cases are reported as treated very satisfactorily with chloral hydrate. In the same journal, June, 1871, three cases are reported—usual treatment.

In the *Journal of the Gynæcological Society* of Boston, two cases are reported, successfully treated with hydragogue cathartics—February, 1871.

In the Philadelphia *Medical Times*, January, 1872, a case is reported in which three drachms and two scruples of

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chloral were given in eight hours, and finally the woman recovered.

Dr. Vines, of Reading, relates a case of convulsions, eighth month of pregnancy (*Lancet*, 1845). "Face and whole body livid, features distorted, frothy mucus about the mouth, edema of upper extremities, frequent and violent convulsions, and perfect unconsciousness; inordinate and tumultuous action of the heart, and a quick, feeble, fluttering pulse." All the symptoms greatly improved, and convulsions arrested, by drawing off five and a half pints of urine—a striking illustration of an eccentric cause, produced by irritation of the vesical nerves from distension of the bladder, which was conveyed to the nervous centre, and reflected upon the motor nerves, and the muscular system, in the form of convulsions. How else can we account for cessation of the fits and the speedy return of consciousness?

Dr. Herbert Fearn, in the *American Journal of Obstetrics*, for May, 1871, has a paper on "Veratrum viride in large doses as a substitute for blood-letting in puerperal convulsions." He reports thirteen cases in all (three from others), and the quantity of the tincture given, in some of the cases, is enormous, when we consider its reputed action on the nervous and circulatory systems. In one of his cases, in consultation, he gave five drachms in ten hours. In one reported by Dr. Vrooman (same paper) thirteen or fourteen drachms were given in thirty hours. It is proper to state that chloroform was also used in some of the cases, and cathartics also; but the veratrum viride was given *for effect*, and certainly did not kill either one of the women, for I believe they all recovered, except one, who died four or five days after delivery, from "puerperal fever." It remains to be seen what this medicine may accomplish in the way of arresting these convulsions.

In the tabular statement may be seen a case of *post partum* convulsions reported by Dr. Jerome Cochrane, of Mobile, treated alone with half-drachm doses of the tincture. This medicine was given by some other reporters also, but in combination with other remedies, and consequently we cannot see

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so clearly its effects. In Dr. Cochrane's case, its action was entirely satisfactory, the details of which are minutely given in his report.

Dr. Gilmore, in his communication, seems favorably disposed to the free exhibition of this medicine, and says—"The indications are plain—protect the brain, and this you can best do by staying the heart's action. Of all remedies, we have none comparable to veratrum viride for this."

It may, perhaps, be premature to predict the treatment which Prof. Carson may advise, unless we can occupy his stand-point precisely, and see the convulsions as he sees them. But when we examine his conclusions closely, as to the causes and pathology of the disease, we must conclude, I think, that he will recommend a different treatment from the one now generally practised. I hope he will very soon give us his treatment, for I see much in his article to approve.

From all that I have seen and read of the treatment of eclampsia puerperarum, I am of the opinion that many of the cases, in women otherwise sound and healthy, will get well of themselves, without any other treatment or attention than what is given by sensible and attentive nurses. That the convulsions are dependent for their occurrence upon *utero-gestation*, its attendants and sequences, will not, I suppose, be controverted by any one. I may be told, "See the quantity of blood drawn in many cases, and the favorable result." For example, Prof. Dewees took from a delicate small woman 97 ounces, and from a large, plethoric, robust woman, 140 ounces! and both of them recovered. These cases demonstrate to me the large amount of blood a healthy person may lose, and yet live; and not that it was necessary to lose so much that they might live.

Healthy persons recover from excessive loss of blood very rapidly, and usually without any bad concomitants. Nature repairs the waste wonderfully fast, and healthy persons may be bled very often and freely, without serious injury.

Is it true that pregnant women have too much blood, and that this superabundance produces hyperemia of the brain,

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which causes convulsions? If so, the natural remedy, and the only one necessary, is to withdraw a sufficiency of blood to reduce the quantity to the normal amount. But we see convulsions in women whose condition teaches us, too plainly to be mistaken, that they have not too much blood. What causes them to have convulsions? It may be replied that, in the latter cases, the congestion is *passive*, while in the former it is *active*. Does congestion of the brain *produce* convulsions at all?

Most certainly, in cases of unmistakable congestion of the brain, as we see it in other cases, stupor and coma, not convulsions, are the symptoms. It is true that there is coma in these cases of convulsions, but it is also true that it follows, and does not precede, the convulsions. May we not conclude, then, that the coma is produced by cerebral congestion, consequent upon the convulsion, whether it be in a plethoric or in an anemic woman.

May not the symptoms, attributed by some to general sanguineous plethora, be produced by an unequal distribution of the blood, even when it is not superabundant? If hyperemia of the brain is the cause of the convulsion, *this* must be true in the anemic, because we know that they have a smaller amount, and of an inferior quality. In many women we see œdema in the feet and legs—in some it is very great, and is caused, doubtless, by mechanical means, pressure of the gravid uterus on the veins returning the blood from the inferior extremities.

We have seen some whose legs were so enormously swollen that the skin would split open, and the effused serum trickle down their legs in streamlets to the floor. These women look like they did not have a drop of blood in their bodies. My observation induces me to believe that they all have a scanty secretion of urine, and very thin, poor blood. If mechanically, or by any other means, the return of the blood from the brain to the heart should be thus arrested or impeded, we should expect œdema of brain—why not? Does not the asphyxia preceding the convulsion, and the failure of the heart

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to receive and distribute the returning blood, produce congestion of the brain?

As the convulsion approaches, the pulse becomes small and rapid. In the coma, the pulse is fuller and slower,—at any rate, this is my experience. The coma is deep and profound in proportion to the cerebral congestion, which is the consequence of the asphyxia; and the heart labors to remove it. If this labored action of the heart does not remove the congestion, the coma continues, and the woman dies from congestion of the brain—precisely like other persons die from congestion, or compression, of the brain, produced by other causes, and coming on under different circumstances. If it does remove it, consciousness, or partial consciousness, returns—the cycle is then complete: but the cause of the convulsion may not yet be removed, nor made inoperative; and we have a return of the convulsion.

I imagine that the cerebral congestion follows the asphyxia and convulsion, and, as a natural effect, in the anemic as well as in the plethoric, being more defined, perhaps, in the latter. Venesection then suggests itself as a reasonable remedy, to assist the heart in removing the congestion from the brain. *This it may do,* but does it prevent a return of the convulsion? Certainly it does not, unless cerebral congestion be the cause of the convulsion. That this is the view taken by many, is clearly deducible from the large and repeated bleedings practised in this disease. If the cerebral congestion follows, and does not precede the convulsion, it would seem that other remedies might be more successful than venesection in preventing its return.

The premonitory symptoms of the attack do not usually portend *coma,* which always attends congestion and compression of the brain; but they generally foreshadow *convulsion.* I do not intend to say that coma *never* comes on unless preceded by convulsion, for we often see that it does; but not in puerperal attacks. It may now and then happen that a pregnant woman may become drowsy, dull, stupid, and finally comatose. And when this does happen, she dies like a person

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from an apoplectic or paralytic stroke, or comes slowly out of the attack with partial paralysis. *She does not have repeated fits,* and finally wake up out of a long and quiet sleep, as though nothing unusual had befallen her. There is certainly something more protean, erratic, electric, in the composition of puerperal convulsions, than can be explained by humoralism.

When we look at the reports in the table, we see that there is much uniformity in respect to the treatment. Bleeding is used by some to remove hyperemia of the brain, which they hold as the cause of the convulsions. Others bleed to protect the brain from the congestion which follows the convulsions; each one repeating the bleeding as long as the patient can bear the loss of blood, or until the convulsions cease; hence we see the large quantity usually abstracted, because bleeding scarcely ever arrests the convulsions.

Dr. Frank Ramsey bleeds, not profusely, but rapidly—"in a gust." He opens a large orifice, and lets the blood "spill out" suddenly. He relies upon the *sudden* abstraction of blood, and deprecates the loss of a large quantity.

Dr. Ezra Michener, of Pennsylvania, (No. 11 in the Table,) who has been an active practitioner more than half a century, has made me a long, minute, and very interesting report. Many of his cases may be read in the *Medical and Surgical Reporter,* June, 1868. He writes me that his success in the treatment of puerperal convulsions has been the result of "*prompt and copious bleeding.*" I refer particularly to his report; also, to Dr. McCulloch's, No. 5; Dr. Ewing's, No. 8; Dr. Thompson's, No. 9; Dr. Lipscomb's, No. 12; Dr. Saunders's, No. 26; Dr. Armstrong's, No. 49, and Dr. Ramsey's, No. 50, as reporting the largest number of cases, and as advocates of free bleeding. Dr. Gilmore, No. 46, reports thirty cases, he "thinks," but as he has no record of them, he cannot give particulars. On account of his position, he has seen, perhaps, more cases demanding instrumental interference than usually falls to the lot of his colleagues, and this may account for the large mortality of his cases.

Dr. Avent reports a large number (twelve—see his report,

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No. 13). Only one died; and singularly enough, it was the one bled most profusely.

Dr. Saunders writes me that his late experience induces him to believe that the convulsions can be controlled and kept off, if seen early, with chloroform, after bleeding and veratrum viride, &c.

It will be observed that cupping, cold to the head, blistering, cathartics, and antimonials, were the remedies usually employed in conjunction with venesection, and these failing to arrest the return of the convulsions, opium, in some form, was added; and latterly chloroform, chloral hydrate, bromide of potassium, and veratrum viride.

In the treatment of puerperal convulsions, always recollecting that if there was no utero-gestation we would have no convulsions, we should keep constantly in view the importance of delivery as soon as it can be accomplished with safety to the mother. With those who believe that *hyperemia* of the brain is *the cause* of the convulsion, and that its continuance produces a return of the convulsion, again and again, bleeding largely, antimonials, cold to the head, active cathartics, and derivatives, will be their dependence and chief reliance. With them the cause is *centric*.

It remains yet to be seen how far the veratrum viride may be a substitute for blood-letting, and by what mode of action it is a substitute; or whether it is a substitute at all, in the sense in which it is used.

With those who believe that the cause is *eccentric*, originating in the condition of the uterus, its annexes, or adjacent organs, and that the nervous centres are in a state of hyperæsthesia, the treatment will, of course be different. They believe that it is because of this hyperæsthesia (excessive irritability and sensibility) that the nervous centre responds to the demand which is made on it by those eccentric causes, in the form of convulsions; and that there are a few means only, necessary or useful, in the treatment. They do not believe that this nervous hyperæsthesia is produced by super-nutrition, or by hyperæmia of the brain, and consequently, they are not

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the advocates of active depletion. They, too, fear the consequences of cerebral and spinal congestion, which inevitably follow the convulsion, and after relieving the former (or assisting what they can), they direct their attention principally to the prevention of the convulsion, which they expect to do by the use of such means as will put the cerebro-spinal system in such a condition that it will not recognize the demands of eccentric application, either by removing the cause, or by making it inoperative. They, too, claim veratrum viride, but chiefly chloroform and opium, and certain remedies known as nervous tranquilizers, to prevent a return of the convulsions—always, however, recognizing the fact that there is no security against the convulsion until the cause is removed.

Acting upon these views, they will immediately, when called to a case of puerperal convulsions, clear the field of operation of all obstructions. If the bowels are full, they will empty them immediately—and croton oil is the best, if it can be given, provided enemas do not suffice; empty the bladder, if necessary, with the catheter; be governed by the pulse and circulation, and general appearance of the patient, as to the loss of blood, and then use chloroform carefully, to prevent a return of the convulsion. If you can keep off the return of the convulsion, all will be well, provided the previous engorgement of the brain, by the asphyxia, with black blood, has not done its work.

Something must be given to prevent the nervous centres, already highly excited (in a state of hyperæsthesia), from recognizing the eccentric cause, until the latter may be removed, either by delivery, or by some other agent. If it be in the uterus, delivery is the only permanent relief, and consequently they will deliver as soon as it can be done safely for the mother. Assisting nature is the best, and a natural delivery is greatly to be preferred, if it can be accomplished without jeoparding the life of the mother—the preservation of which I hold of paramount importance. The forceps comes next, if they can be applied, and the child is alive; if not, use the perforator immediately. Take Prof. Miller's advice and follow his directions on this subject—they are the best I have seen.

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Whatever can be done to remove the eccentric cause of the convulsion (if it be eccentric) should be done, and done quickly, if it can be done safely. I think we can often do this, in the manner above directed; but if we cannot, then the next course advisable would seem to be that which will prevent the nervous centres from *perceiving* the cause of the convulsion, and which, if done, will prevent them from reflecting the morbid impression either upon the heart, impairing its action, or upon the muscular system in the form of convulsions.

Without entering upon the examination, at this time, whether the morbid impression made on the nervous centre by the eccentric cause (be it what it may), is reflected *directly* upon the muscular and sensory systems, or whether it is directly reflected upon the heart, and indirectly on those, we still wish to emphasize the importance of destroying the *perceptivity* of the nervous centre to the morbific eccentric cause, as long as the latter exists. *This* seems to have been done by the inhalation of chloroform, by opium, by chloral hydrate, by bromide of potassium, and, *perhaps indirectly*, by veratrum viride.

It must certainly be a grave question to determine whether it is safer to push blood-letting to the extent of destroying this perceptivity of the nervous centre, or to rely, after the failure of a decisive bleeding in the plethoric, on the remedies just mentioned. If the *symptoms* of cerebral congestion are taken as the indices for venesection, why then venesection will be repeated upon the return of the convulsion, because these symptoms necessarily and naturally follow the convulsion. I must think this will not be done.

It is also a question for examination, to determine what effect excessive loss of blood has upon the child. In convulsions, a majority of the children are still-born. Has our treatment anything to do with this mortality?—or is it produced by the convulsions? It has also been asserted by some that the child is destroyed by uræmia—poisoned blood. It requires more time than I now have, to investigate these subjects, and afford anything like satisfactory answers to the questions suggested.

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The idea of arresting the convulsions, upon the assumption that they are produced by *poisoned blood*, with the use of remedies "*to eliminate the poison*," is too hypothetical to be relied on, to the exclusion of more prompt and powerful means. The practice is too slow. The rapidly returning convulsions will kill the woman from the accumulating cerebral congestion, or from nervous and muscular exhaustion, before the eliminating process can be made to work. Nor do I suppose, even if we should ascertain, during the convulsions, that the urine was albuminous, that it will assist us any in the treatment, only so far as it may be indicative of hydropic blood; and this must be determined by the duration and amount of the albuminuria, and the general effect which it has produced on the system.

The association of albuminuria with utero-gestation, and the connection which they bear to each other, as well as the causation of convulsions by the former, are subjects which call for more accurate and extended observation. If, upon such investigation, it shall be demonstrated that puerperal convulsions are always preceded by, and accompanied with, albuminuria, and that the intensity and severity of the former are dependent upon the duration and quantity of the latter, we shall, I guess, be constrained to admit that *impaired nutrition* of the nervous centre, and not *excessive nutrition*, produces the eclampsia. We do know that, in cases of ovarian dropsy, the fluid is largely albuminous—that the quantity of urine secreted is very small, generally, and the women become anemic, and finally die emaciated and comatose, unless relieved by ovariotomy. It is no argument against its deleterious effect on the general system, to say that the albumen, in ovarian dropsy, is not thrown off from the body, but retained within the economy; for, to all intents and purposes, *it is* without the system, and is of no more use to the body than an extraneous substance.

One more thought before we conclude. Let us suppose that the cerebro-spinal centre, from which is radiated the morbid impression causing the convulsion, is perfectly *intact*, will it

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reflect the demand made on it by the eccentric cause? Or, must *it*, also, be morbidly impressed, in common with the distant organ from which the eccentric cause originates, before it will perceive the impression? Or, is there a condition of the nervous centre, generated by utero-gestation, which produces convulsions, independent of any eccentric cause? These are questions which demand our consideration, and present a field of inquiry as inviting as it is intricate to explore. But I will not pursue this idea any further now. Enough has been said to arrest the attention of the thoughtful, and they can examine it at their leisure.

In addition to the number of cases of convulsions noted in this paper, a great many more may be read in the medical journals of the day. I could not, without extending this article to an inexcusable length, notice them all, but I hope enough have been noted to answer the demand of the Society, and satisfy the members that I have devoted a large amount of time and thought to the subject.

Before dismissing the question, however, I will remark, that another affection (puerperal mania) is sometimes troublesome, and requires attention. I imagine that it is a near relative to convulsions. All the cases that I have treated have been after delivery, and were speedily relieved by seclusion in a dark room, gentle stimulants, opium, good food, perfect quiet, and sound sleep.

The old proverb, "an ounce of preventive is worth more than a pound of cure," is particularly true in such females as manifest any tendency to convulsibility. They should be kept free from all sudden and powerful emotions—have regular and moderate exercise, food easy of digestion, a large amount of sleep, full and free evacuations from the bowels, free secretion and discharge of urine, and be kindly treated by their associates, particularly by their husbands, who should watch over them with increasing care and consolation.

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VACCINATION.

ITS POWER TO PROTECT THE SYSTEM AGAINST VARIOLOUS CONTAGION.

BY JAS. F. WEEDS, SURGEON U. S. ARMY.

[CONCLUDED.]

RICORD reports an extraordinary outbreak of infantile syphilis in Paris, in 1862, far more extensive than the one at Rivalto; in this instance it could not be traced to its origin, and there was no possibility of its having originated in vaccination.

In the same year, an event took place, at Paris, of a different kind. It occurred in the wards of M. Trousseau, at the Hotel Dieu. The case is very instructive, and what gives it additional weight is, the circumstances were such as to convince that illustrious observer that it really was a case of vaccino-syphilis.

A young woman was admitted to the Hotel Dieu with uterine disease, supposed to be non-specific; at the time small-pox existed in the hospital, and she was re-vaccinated, by three punctures in each arm, from a healthy child. From the same source, and at the same time, four children were vaccinated, all of whom had regular vaccina, and at no subsequent period were any of them known to have symptoms of syphilitic infection.

As the result of the vaccination in Trousseau's case, only slight papules appeared on her arms, and the operation was considered a failure. A month subsequently, she left the hospital, a period exceeding that of syphilitic incubation, and

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during which, if the disease had been transmitted with the vaccine lymph, it should have manifested itself; yet, at the time of her departure, there were no sores of any kind on her arms, nor did she show any evidence of having syphilis.

A month later she returned to the Hotel Dieu, and then had, on one arm, two sores that Trousseau pronounced syphilitic. It was subsequently ascertained that this woman was a prostitute, and when we consider this, in connection with the other facts; that the child from which she was vaccinated was healthy at the time of the operation, and remained so subsequently, and the four children who received their primary vaccinations from the same source, did not contract syphilis, it seems highly probable the young woman had the disease communicated to her in some other way than by vaccination.

At the time this case occurred, a rivalry existed in France between the different schools of syphilography, and, each eager to seize on any evidence that gave the least weight to their respective views, this case, in consequence of its intimate bearing on the point in dispute, became one of great importance, and gave rise to acrimonious discussions, that have not yet terminated. Yet I feel assured these events have received more attention than they merit; and fall far short of establishing the doctrine of vaccinal inoculation of syphilis. To my mind, the evidence is extremely defective, and were it not for the importance attached to it, at the Academy of Medicine in Paris, I should hardly conceive it to be of sufficient moment to require a refutation. These cases are, nevertheless, the keystone of the arch upon which the doctrine of vaccino-syphilis rests.

The following has been cited as an instance in which syphilis has been communicated by vaccination. A mere recitation of events connected with it will suffice to show it has no such claim. It is reported by Dr. Elisha Harris, in his "Observations on the Normal and Morbid Results of Vaccination and Re-Vaccination, during the late Rebellion, and on Spurious Vaccination."

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About the middle of December, 1863, in the general hospital at Benton Barracks, Missouri, the patients in Ward "E" were vaccinated from what seemed to be a normal eight-day vaccine vesicle, on the arm of a soldier (and, of course, an adult). It was excessively drained. The day following, the same patient was taken to another ward, and from his inflamed and irritated sore, all its inmates were vaccinated. On the succeeding day, the same man was ordered to a third ward for the same duty, and the patients therein were vaccinated from his now fearfully inflamed arm. This was the tenth day since the original vaccination, and it appears that he was taken through the entire hospital at the rate of a ward a day. Not knowing how many wards the hospital contained, I cannot inform you how long he was kept on this unfortunate duty, but quite long enough for it to be followed by serious results. The patients in Ward "E" were not seriously affected, but the poor fellows in the other wards suffered intensely from local and glandular inflammation, obstinate ulcerations, and indolent swellings.

The patients in Ward "E" did not suffer from the effects of the vaccination, because they were vaccinated with vaccine lymph, and the result was vaccina. To be sure the lymph was taken from an illy-selected subject—an adult, a soldier, admitted to hospital for treatment of some disease or other, and certainly in an improper condition for a vacciniferor. Even in this ward, we are told, the vesicle was excessively drained—in other words, the vaccine lymph was all taken from it. Then with what were the patients in the other wards vaccinated? Certainly not with vaccine lymph; but, unfortunately, with morbid, ill-conditioned pus, derived from an irritated sore on a person debilitated by previous disease. What followed was the legitimate result of such infamous practice. Who but a mad-man would expect to raise a typical vaccine vesicle from putrid pus? That the poor victims suffered from local and glandular inflammations, obstinate ulcerations, and indolent swellings, is just what might have been anticipated.

How this could ever have been considered an instance of

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vaccinal inoculation of syphilis, is more than I can imagine. I can only see in it the most criminal abuse of vaccination, and the results that followed, were only the legitimate sequel of the reckless mode of performing the operation. It is the first instance of the kind that has fallen under my observation, and, for the credit of the profession in America, I hope it may be the last.

While on duty as Surgeon in charge of General Hospital No. 4, in this city (the Howard High School), in 1862, a soldier was admitted with chronic diarrhœa. It seemed he had, on his arm, a sore, the result of a vaccination, made without professional advice, from the arm of a comrade in his regiment. The sore was a large one, and from this fact he conceived his vaccination to be perfect, and imagined himself to be an excellent vacciniferor. Unfortunately, he put his idea to a practical test, and clandestinely vaccinated over thirty patients and nurses in the hospital, each of whom had elegant Hunterian chancres, which were, in due time, followed by constitutional syphilis. This was, without doubt, a case of syphilitic inoculation, and I am strongly inclined to the opinion that a large majority of reported cases of vaccino-syphilis are of the same nature, *i. e.*, syphilitic inoculation, in which syphilitic virus, and not vaccine lymph, has been used.

In this category may be classed the cases of Pitton, in 1844, Geraldi in 1845, Veterinaire B. in 1850, Hubner in 1852, Whitehead in 1854, Marone in 1856, Lecocq in 1859, Pacchiotti (Rivalto case) in 1861, Duvergie, Chassaignac, and Herard, in 1863, Sebastion in 1864, and those of the French Academy of Medicine in 1865.

It is chiefly on these cases that the doctrine of vaccino-syphilis rests, yet they will not bear a strict analysis without bringing to the unprejudiced mind the conviction that the evidence they present is inconclusive and insufficient to even base a rational probability upon, and falls far short of the clear, complete, and conclusive evidence, which alone should be accepted to establish a new doctrine; and if there was not a single fact to disprove the opinion of vaccino-syphilis, I, for

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one, would be disinclined to receive it on the evidence upon which it now rests.

I cannot conceive of the possibility of vaccine lymph undergoing such a change as to become capable of transmitting syphilis. The opinion is opposed by all known physiological laws, and unless the assumption is substantiated by proof the most positive, it cannot be accepted.

The supporters of the doctrine realize the defective character of the testimony upon which they depend, and have themselves almost abandoned the idea that syphilis is transmissible through vaccine virus, and now assert that it is only through accidental mixture of the blood, and through inoculation of epithelial scales, from an infected vacciniferor. Granting this to be correct, which we are far from doing, it practically carries with it no weight, for the great point contended for is, that *vaccination should be performed with pure vaccine lymph, and that only;* not with blood and epithelial scales, or with syphilitic virus. No one will deny that syphilitic poison, whether inoculated through neglect, carelessness, or ignorance, will produce syphilis. Every known animal poison reproduces itself.

The poison of syphilis produces syphilis, that of variola produces variola, that of scarlatina produces scarlatina, and so on, without a single exception in the entire list of contagious diseases. It is, in fact, only an example of the great law of nature, that every thing brings forth after its own kind. I should as soon expect to see the orange tree bear potatoes, as to have vaccina produce syphilis.

Dr. Paget, in speaking of this subject, says: "All pathological researches accumulate evidences of the constant correspondence between the material in the blood, upon which each specific disease depends, and the morbid structure, by which each is manifested. Thus the transformations of syphilitic poison are indicated in successive external characters of primary, secondary, and tertiary affections; the transformation of scarlatina poison, by its regular symptoms, and its sequelæ. And so, if the vaccine virus were capable of any transforma-

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tions, besides those which mark its regular influence, in each patient, such transformations, we may be sure, would be indicated by corresponding and evident changes in the vaccine vesicle. In other words, if the vaccine were changed into any other virus, there would be no vaccine vesicle."

Seaton says: "Who ever heard, in fact, of the virus of small-pox producing anything besides small-pox?—or the virus of measles anything but measles? If cases should be alleged to show that they did so, let anybody ask himself what amount of evidence he would require to establish the point—whether it would not be infinitely more reasonable to conclude that there were some fallacies in the case, though we might not be able to point them out, than that an event should have occurred so opposed to universal experience."

Dr. Mead writes: "Yet I can hardly believe that it ever happens that the seed of one distemper should bring along with it, mixed, the procreative matter of another quite different from it."

Dr. West says: "There has never come under my notice any instance in which there seemed the slightest pretext for supposing that syphilis had been communicated to infants through the medium of vaccine lymph."

Marson, whose experience extended over one-third of a century, in one of the largest small-pox hospitals and vaccinating establishments in the world, in which he performed the operation seventy thousand times, says that he "never met anything to countenance the belief that vaccine lymph had, on any occasion, been the vehicle of conveying syphilitic infection."

Mr. Thompson, the distinguished Inspector of the National Vaccine Establishment of Great Britain, and the vaccinator of fifty thousand children, whose duties as Inspector have brought, during a period of thirty years, more than a million cases of vaccination under his supervision, says that "No instance has ever come to his knowledge of syphilis having been communicated by vaccination."

Langston Parker, Lee, Acton, Preston, Chomel, Latham, Bright, Watson, Brodie, Green, Leese, Sir W. Jenner, Hunt,

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Alison, and a whole army of the leading authorities, with one accord, proclaim their belief that syphilis cannot be transmitted through vaccine lymph. This, indeed, is the almost universal sentiment of the profession, as is clearly evinced by the following enquiry made by the London Board of Health in 1856:

"Have you any reason to believe, or suspeet, that lymph from a true Jennerian vesicle has ever been a vehicle of syphilitic, scrofulous, or other constitutional infection, to the vaccinated person?"

Answers were received from nearly six hundred distinguished practitioners, the category embracing nearly every celebrated authority in Great Britain, France, and Germany, and they, with but a single dissenting voice, gave a negative answer.

The doctrine of non-transmissibility of syphilis by vaccination is strongly supported by pathological considerations, and sustained by the almost universal testimony of the medical profession; and it is still further supported by the results of experiments. Time will not permit me to give these in detail, and I must content myself with a brief enumeration of them, and the results.

Taupin, Heymann, Cullerier, and others, instituted, on an extensive scale, direct experiments to prove or disprove the transmissibility of syphilis through vaccine virus. Unvaccinated persons, who had primary syphilis, were vaccinated, on parts contiguous to chancres, and from these vesicles numerous children were vaccinated, without, in a single instance, producing syphilis.

What evidence can be more conclusive? Vaccine vesicles were produced, side by side with syphilitic sores, and with the vaccine lymph taken from these vesicles, a vast number of children were vaccinated, and not one of them contracted syphilis; and the resulting vaccina was as regular and perfect as if the vaccine lymph had been taken from perfectly healthy subjects.

Is it conceivable that syphilis can be propagated through

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vaccine lymph, and not one of these numerous cases have contracted the disease?

The value of these experiments are greatly enhanced by the fact that all the conditions, under which they were performed, were known and understood; there was nothing about them uncertain and ambiguous. We know, without doubt, that the persons from whom the original vaccine lymph was procured, had syphilis; we know that, although the vaccine vesicles were raised side by side with primary syphilitic sores, they were regular and perfect in all their characteristics; we know that the resulting vaccina was in every respect the same as if the lymph had been taken from non-syphilitic subjects, and that it imparted protection, complete and perfect, without transmitting the least taint of syphilis.

Within the last ten years, since the doctrine of vaccino-syphilis has, in consequence of the events at the Hotel Dieu in Paris, and at Rivalto in Italy, attracted so much attention, these experiments have been repeated, by numerous and careful observers, with identically the same results.

The danger of transmitting, through vaccine lymph, any other infection than its own, is quite visionary, and unsupported by proof.

Now, gentlemen, let me ask, who of you, if any there are, who still entertains a belief in the transmissibility of syphilis through vaccine lymph? If the doctrine is not supported by either general professional experience, physiological laws, pathological investigation, nor by direct experiments, By what is it supported? For my part, I am unable to see that it is supported by anything, unless you accept the few cases that I have quoted, and which have been so industriously paraded before the public, as true cases of vaccinal inoculation, but which have failed to stand the test of investigation. If, upon the other hand, you agree with me, that the evidence upon which they rest is unreliable and insufficient, you must grant that the doctrine of vaccino-syphilis is untenable, and can no longer be accepted as a valid objection to the practice of vaccination.

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Prior to the introduction of vaccination, small-pox raged, nearly universally, throughout the entire human family. In every clime, and among all peoples, it has been the scourge of scourges; it has numbered its victims by hundreds of thousands every year; and in favored England, out of every million of its inhabitants, three thousand died annually of this loathsome and fearful disease. The nations of Europe, Asia, Africa, America, and Oceanica, have alike been decimated by it.

After the introduction of vaccination, the mortality from variola in England rapidly declined, from the terrible rate just quoted, to one hundred and seventy-one per million of population per annum.

This, Gentlemen, is what vaccination has actually done for the people of England. For those of Prussia, Denmark, Bavaria, and other German States, it has done more; for it is in these countries that vaccination and re-vaccination have been—not universally, but more generally so practised. And wherever vaccination has been the most rigidly enforced, as in the armies of Prussia, Bavaria, and England, there have we invariably had the smallest mortality; and where it has been the most neglected, or not at all practised, as among the Indian Tribes of America, and the Savages of the South Sea Islands, we find it has committed the most fearful devastations, in some instances having exterminated whole tribes.

In this country, the existence of epidemic small-pox is due to the criminal neglect of vaccination, and the extremely inefficient manner of performing the operation. One of the highest American authorities, in discussing this subject, writes:*

"Feeling certain that many of the deaths which have been recorded during the epidemic of small-pox would never have occurred had vaccination been more invariably practised, and feeling also satisfied that the majority of medical men share in

* See Editorial in the "Philadelphia Medical Times," on "Compulsory Vaccination," vol. xi. p. 91, December 1, 1871.

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our belief that the epidemic itself would probably never have broken out had re-vaccination been more general among us.

Every child, whatever its color or nativity, whether born under a tropical sun or within the icy regions of the polar circles, brings with it, into the world, a susceptability to the infection of small-pox, that can only be extinguished by successful vaccination; and should this susceptability not be so destroyed, there is a probability, amounting nearly to a certainty, that the disease will, at some future period, be contracted upon exposure to its infection, endangering the life of the individual, and forming a nucleus for an epidemic of variola.

The ravages of this fearful pestilence, when unmodified by vaccination, have been terrible in the extreme, and as widespread as are the habitations of mankind. The prophylactic, fortunately, is simple, easy of application, unattended with danger, and certain in its results. A pestilence that is world-wide, loathsome in the extreme, and fatal beyond comparison, may be (thanks to the genius of Jenner) controlled, modified, banished, exterminated, by the life-saving operation of vaccination. The magnitude of such a blessing can hardly be appreciated, and cannot be over-estimated; and, with the exception of the glorious scheme of salvation, through our Lord and Redeemer, it has never, in the history of man, been equaled. And as there are a vast number of our race who reject the blessings of salvation, so there are those who refuse the blessings of vaccination; but here the parallel stops. The rejection of salvation affects only the individual, while the rejection of vaccination not only endangers the lives of those who reject it, but when they have contracted small-pox, they, in addition, form centres of infection, from which the disease is liable to extend, endangering other lives than their own.

If the enticing advantages derived from vaccination are insufficient to secure its universal acceptance, the danger to the public, arising from its rejection, is of such vast importance as to call for the united effort of the medical profession, as guardians of the public health, to promulgate some scheme by

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which universal vaccination may be enforced, and the danger of epidemic small-pox extinguished.

We have all learned, from our individual experience, that the advantages arising from vaccination are insufficient to secure its universal practice. Some reject it from ignorance, others from prejudice, and still others from neglect and thoughtlessness; but let the cause be what it may, the result is the same. It is due to their presence that epidemic small-pox has an existence, and the chief object of preparing this paper is to invite your coöperation in devising means by which this class, so dangerous to the public health, may be induced, or, if necessary, compelled to practice vaccination. It is a principle of common law, as well as of justice, that whatever endangers the health or safety of the public must be abated. And what danger compares with that arising from the presence of a numerous class of persons in our midst, who are either imperfectly or wholly unvaccinated, ever liable to contract small-pox, and scatter its infection like sparks in a gale.

The experience of three-quarters of a century has proven how futile it is to endeavor to induce the people of a state, or even of a community, to universally accept vaccination; and any measure that falls short of making vaccination universal, only lessens, but does not entirely remove, the danger of small-pox.

Compulsory vaccination, or vaccination enforced by legal enactment, seems to be the only rational remedy, and the only one by which the object can be accomplished. It is the means resorted to in many European countries, and the only one that can be successful. Such laws have there long been a necessity, and as our country becomes more densely inhabited, and our lines of travel more complete and numerous, the necessity for laws enforcing universal vaccination will be proportionately greater.

The rapid march of the pestilence through the more densely inhabited portions of the States, committing fearful ravages, especially in Philadelphia and other large cities, is evidence

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that the time has arrived when compulsory vaccination is a necessity in this country, as well as in Europe. That necessity must be recognized and proclaimed by the medical profession; it cannot be expected that legislators will take the initiative in matters of public hygiene.

In a few days, most, if not all of you, will have returned to your homes, and have resumed the routine of your daily practice, and be surrounded by your friends and patrons, who look upon your opinions, in matters pertaining to your profession, as did the ancient Greeks upon the oracles of the goddess Diana; and if ever we have laws enacted in this country, making vaccination compulsory, it must be through the influence you exercise over their minds. Show them the danger incurred by themselves and their families, in consequence of there being so many unvaccinated persons in our midst, and they will demand of their legislators legal enactments that will protect them and their families from the danger.

You must remember that your patrons are the constituents of your legislators, and that they cannot refuse their support to any measure that may be demanded for the protection of the public health.

A CASE OF PLACENTA PRÆVIA, WITH TWINS.

BY E. M. WIGHT, M. D., CHATTANOOGA, TENN.

On the 24th of April, I was called upon by Mr. S——, who stated that his wife was "flooding considerably," and was expecting confinement in about three weeks. Upon close inquiry, I thought the flow not sufficient to demand immediate

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interference, and advised entire quiet; and inasmuch as she had twice before, within the month previous, had slight hemorrhage, which the husband thought had been relieved by alum-water injections, I counseled their continuance, directing him to send for me very early when the labor should commence, and to send at once in case the hemorrhage continued. The family living some miles out of the city, I heard nothing more of the case until the night of the 19th of the following month, when I was sent for hastily, with the word that Mrs. S—— was in labor, and flooding.

Fearing the nature of the case, I made haste to the bedside, and found, on arrival, that the flow was not alarming, although sufficient to demand an immediate examination. The patient, who was possessed of an unusually clear understanding of such matters, stated at once that she feared that the flow was from the "after-birth," and that she was carrying two children. I did not feel authorized to dispute the correctness of this intelligent diagnosis, for, upon examination, I found the os but slightly dilated, and completely filled with what was, without doubt, the vascular substance of the placenta.

The peculiar shape and feel of the abdominal tumor likewise led me to believe that she was right in her opinion concerning the number of children. This was the third confinement—one eight and one five years before, both boys. During the early part of this pregnancy she had accompanied her mother, who was in very feeble health, to a watering place in Michigan, and had been her constant companion, assisting her often by the employment of all her own strength.

The uterine contractions were but slight, occurring about every hour, and ceasing altogether before morning. There was no recurrence of the hemorrhage, and no further dilatation of the os that day. This state of things continued almost in *statu quo* for nine days, with two slight recurrences of the flow and attending slight dilatation, at which time the uterine contraction assumed a more gratifying force, and the hemorrhage returned so freely as to demand prompt action. The os was not yet of sufficient size to admit more than two fingers,

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and I was about deciding to plug the vagina and wait for more dilatation, when, upon examination, I discovered that the placental border could be felt as far up as the finger could command, on the left side, and at once detached all that portion of the placenta on the left side of the uterus, as far back, posteriorly, anteriorly, and on the right side, as I was able.

During this operation the hemorrhage was, of course, considerable, but, using the hand as much as possible for a plug, I think I was able to so press upon the ruptured placental vessels as to suppress the flow in a great measure. The head was presenting. After their detachment was completed, there was no further hemorrhage worth mention, until the first child was delivered.

While the operation was proceeding, and during a few minutes after, the os had so far dilated as to admit of the introduction of the hand; but there being no hemorrhage, and a vigorous pain taking place every four to seven minutes, I thought best not to further interfere. A few pains soon brought the detached portion of the placenta down through the os, accompanied by a good-sized protrusion of waters, which I soon after ruptured, though the membranes were the toughest I ever met with.

The first child, a female, weighing six and a half pounds, was delivered a few minutes after. The mother at once inquired if there was another child, and was told that there was. The average amount of liquor amnii was voided during this delivery, and a very considerable red flow followed.

No contraction taking place for some twenty or thirty minutes, and the hemorrhage continuing with a gradual increase, I reluctantly decided to deliver the placenta. Soon after commencing its detachment, the discovery of the union of the two placentæ was made. As soon as this was ascertained, I ruptured the membranes of the second child, and delivered it by the feet as expeditiously as consistent. There was more than the usual amount of liquor amnii. A male child of seven pounds weight. Vigorous uterine contraction soon set in, and

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in a few minutes the double placenta, nineteen inches in length, was passed.

Now, owing to the large size of this placental attachment, it seems to me that Simpson's method could not have been practiced; and in view of the fact that the detachment of that part of the placenta attached to the neck of the uterus, and in that portion subject to dilatation, as advocated by Barnes, succeeded so well, may we not reasonably suppose that we have a right to content ourselves without detaching the whole placenta in the great majority of cases of placenta prævia? For *almost never* does it occur that the attachment is over the os, on all sides equally.

It seems to me that this is a case in which there can be no doubt that the twin conception, occasioning so large a placenta, was the cause, in part, of its being attached so low down.

FRACTURE OF THREE BICUSPID TEETH LONGITUDINALLY, BY CONTRECOUP.

BY PAUL F. EVE, M. D., NASHVILLE, TENNESSEE.

In the twenty-seventh volume of this journal, 1870, may be found the account of two unusual fractures—one of the anterior superior spinous process of the ilium, and the other of the sternum. Attention is now called to one still more curious and infrequent.

On the 26th of July, my friend and neighbor, Dr. G. W. Currey, brought to my office Mr. Cotter, a brakeman on the Northwestern railroad, who, in attempting to check the pro-

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gress of an engine at a station near the city, by putting the end of a fence-rail under the wheels, was violently struck under the chin by the other end being thrown up, by which he was rendered insensible for half an hour. The patient was in good health, and aged 25 years. After a few days, he came to Nashville, and was seen by Dr. C., who said to me, "Here is a singular case of fracture, and I want you to report it, for it will require witnesses to make even the profession believe it." The two left bicuspids and the first one of the right side were seen to be fissured, perpendicularly, and vertically, apparently to the extremity of their fangs. The inner halves could be pressed inwards by the probe or nail of the finger, and were, moreover, quite loose. The man had suffered greatly, but now permitted these loose portions to be removed, which confirmed the supposition of their division down to the extremity of the roots.

The *rationale* of the accident we think was this—that as the superior dental arch overlaps somewhat the inferior, the outer cusps of the lower jaw were, by the blow, driven between those of the corresponding and antagonist in the superior, and like a wedge, had split them in two. The integuments under the chin were contused, but there was no fracture of the inferior or superior maxillary.

That the breaking of a bicuspid tooth longitudinally is of rare occurrence, may be inferred from the fact that in the recent work on Oral Diseases and Surgery, by Prof. Garretson, M. D., &c., edition of 1869, Philadelphia, no other allusion is made to the subject than to those which take place in attempts at their extraction; and Mr. John Tomes, F. R. S., Dentist to the London and Middlesex Hospitals, probably the highest English dental authority, states that the molars may be injured by the jaws being violently driven together, so that their cusps, or spear-like processes, may be broken off. He mentions a case in which he had seen the fissure extend from the crown through the greater portion of the root. The only one somewhat similar to that reported here, is met with in vol. x., *Dictionnaire de Médicine*, in thirty volumes, in which it is said

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that M. Duval once saw a man of sixty years who had two bicuspids of the superior maxillary fractured longitudinally, without much effort or pain. The author of the article, M. Oudet, states also that he had met with two or three like cases.

In the instance now recorded, both superior small molars on one side, and the first of the other side, were simultaneously split from their crowns to the ends of their fangs, by a violent blow suddenly received under the chin. The pulp cavities having been fully exposed, the teeth will necessarily be lost.

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ITEMS OF ARMY EXPERIENCE DURING THE LATE WAR.

Reciprocal Influence of Mind and Body in the Production and Cure of Diseases, illustrated by Nostalgia and Cure of Paralyzed Muscles by Fright, &c.—Interesting Snake Story.

BY PROFESSOR R. T. COLEMAN, M. D.,
Formerly Chief Surgeon of Stonewall Division, C. S. A.

RECIPROCAL INFLUENCE OF MIND AND BODY.

"The mind and body," says Sterne, "are like a jerkin and a jerkin's lining—rumple the one and you rumple the other." This reciprocal relation between the mind and body is too much ignored by physicians, and many an opportunity of wooing the sick body back to health through the medium of the mind, has been lost in ineffectual efforts to remove, by physical means, maladies that were purely or partly psychical, and as such, demanding a purely mental and moral treatment, or a combination of this with judicious medication. Thus quackery, in its protean forms, by exciting a lively faith in the highly imaginative, has frequently, to the discredit of our profession, accomplished cures that we have essayed in vain. This defect in our practice is largely due to the original imperfection in our medical educations; our schools teach man physically, but not mentally. The study of the constitution

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of the mind, the laws which govern its actions, its peculiarities, or what might properly, in individual cases, be denominared its idiosyncracies, constitute one of the most essential, though largely neglected, branches of medical education. There is no reason to doubt that the cultivation of this subject, on strict philosophical principles, would yield laws that might be relied on as implicitly as the laws of physical science; nor will the science of medicine have achieved the perfection of which it is capable until this has been accomplished. It is not enough that we should be familiar with the origin and insertion of every muscle, the course of every artery, vein, and nerve, and the appearance of every tissue, in disease and health, but we should understand the influences of that supreme, co-ordinating, controlling power of the whole—the mind. The foregoing remarks are designed as an introduction to a few illustrations of the production and cure of disease by this nice adjustment of sympathies between the mind and body. These illustrations could be largely multiplied from the experience of any physician in full practice, but I only take two or three that were observed during our late war.

Nostalgia.—In the command to which I was attached, was a regiment of North Carolinians, and most gallant soldiers they proved to be, illustrating their valor on every battle-field from the "First Manassas" to the surrender at Appomatox Court House. At the commencement of the war, however, I never saw any thing like their home-sickness—their nostalgia, as we called it. I had heard that the Swiss would pine away and die if removed beyond the sight of their native mountains, but this I supposed to be a poetic fiction. An analogous state of things I saw illustrated time and again with these North Carolinians. Without any provocation, without any physical disorder, without fever, they would pine away; and beef essence, brandy, carbonate of ammonia, the whole armamentum of stimulants and tonics, proved of no avail. But simply say to them: "Hurry up, boys, get strength enough to travel—I want to give you furloughs," like magic, light would come

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back into their dimmed eyes, strength would return to their feeble pulses and limbs, and they were ready at once to start homewards. They would have died, in many cases—absolutely have died—had they been denied the privilege of seeing the sand-hills and pine barrens of North Carolina, and of chewing "rossum" (resin) on their native heath. Indeed, many of them did die—some from the nostalgia alone, but much the largest portion from intercurrent diseases, such as typhoid fever, diarrhœa, &c., to which, in their depressed condition, they were peculiarly vulnerable, and against which their constitutions made no resistance.

The destructive power of the depressing emotions was strikingly illustrated in our late war, not only in the field, but at home. I was shocked, on returning to Richmond, to find that death had been almost as busy out of the army as in it. Almost "all, all were gone, the old familiar faces," prematurely hurried to the grave by the loss of their loved ones and the excessive mental tension from which no one at the South was exempt for four years, aided by an indescribable sorrow for the failure of our much loved, fondly cherished, nobly defended, but, alas! Lost Cause!

Restoration of Paralyzed Limbs by Fright.—We all vividly recollect the battle of Kernstown, where Jackson, in order to detain in the valley, and thus prevent their reinforcing McClellan, about fifteen thousand (15,000) Federal troops, hurled against them his little band of twenty-five hundred (2,500) men, and so magnificently did these fight, although they had marched sixty miles in two days, that, until the sun went down and closed the conflict, victory, still wavering, remained undecided upon whose banners to perch.

With night-fall Jackson retired from the field about a couple of miles, ordered the soldiers to go into camp, and for the first time, gave them permission to burn fence-rails. Delighted at this novel luxury, which previously had been most positively interdicted, every man built, for his individual comfort, a fire of gigantic proportions.

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Jackson's object was subserved. The enemy, seeing our extensive camp-fires, insisted, and probably still insist, that we had been re-inforced by twenty thousand men, and hence they moved in pursuit the next morning with great caution.

Just here let me say, that if Prindle, the Napoleon of gamblers, had, in his earlier years, known "Old Jack," as the soldiers affectionately called him, in sheer shame and mortification, at recognizing a talent for "bluff" so vastly superior to his own, I think it probable that he would have entirely abandoned the profession of cards for some less lucrative but more godly calling, as, for example, the practice of physic.

On this retreat of General Jackson's, after crossing Cedar Run, about eighteen miles from Winchester, under the idea that we were not likely to meet with farther molestation, and because their exhausted condition absolutely demanded rest, the troops were halted and permitted to cook their rations. There was in my command a private, Mays by name, whose limbs had become so stiffened by sub-acute rheumatism that he was almost helpless. This had been the case for three or four months, and close observation had satisfied me that my original suspicion, that he was a malingerer, was groundless, and the correctness of this conviction was confirmed by the progressive atrophy of the lower extremities. Although he could not perform any of the duties of a soldier, he was permitted, at his own request, to remain with his command, always riding in his company wagon when we were on the march.

On the occasion referred to, Mays was sitting in the wagon eating his dinner, which some of his comrades had compassionately cooked for him, when the vanguard of the enemy's cavalry, availing themselves of our delay, came in sight on the opposite side of Cedar Run, and before our teamsters could hitch up and move off, they unlimbered a piece of artillery, and let fly, the first shell bursting immediately under the tail-board of the wagon upon which Mays was sitting. The effect was marvellous and instantaneous. He stopped not to "take up his bed and walk," but he picked himself up with an agili-

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ty that would have reflected credit on the soundest limbs, tarried not with his command, nor rested from his labors until, in an astonishingly short space of time, he had placed forty good English miles between himself and the enemy.

The cure was complete, radical, permanent. Through many a weary mile, on subsequent marches, did these legs, the fleetest in "Jackson's Foot Cavalry," bear their possessor, nor did they ever again stiffen, until, in the embrace of death, at the battle of Slaughter's Mountain, they grew rigid. Poor, poor Mays! in no spirit of levity, but simply to subserve the purposes of science, do I evoke you, covered with many a nobly won wound, from the patriot grave to which, with loving hands and tearful eyes, your comrades consigned you. They had ceased to laugh at your hegira in admiration of your subsequent heroism, and I desire to do no less. Green be thy grave, and glorious thy resurrection.

SNAKE STORY.

In the fall of 1862 the division was encamped near Orange Court House. Our headquarters were in an oak grove, to police which a detail of men was made, among whom was a youth from Louisa County, named Boxley.

Boxley, in taking up a handful of leaves, felt something like a sharp thorn pierce the tip of the index finger of the right hand. On looking down, he beheld, to his dismay, a "dry-land moccasin," or, as some call it, a "low-land rattlesnake," a most poisonous variety of reptile, not unlike the ordinary moccasin, except that it never attains such size, and its coloring is not so brilliant. At once he ran to my tent, about twenty paces distant, and made the above report. Immediately I drew a piece of tape tightly around the finger, to prevent the absorption of the poison into the system, and had I been certain that he had been bitten by the snake, I should have cut out a wedge-shaped piece of the finger, including the bite, and have sought to eliminate the poison by encouraging bleeding. As it was, I contented myself with the application of the tape.

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No untoward symptom ensuing, after the lapse of about half an hour I removed the ligature, and in less than five minutes the poor fellow's arm was swollen to double its natural size. The glands in the axilla were enlarged to the extent of a man's fist; the pulse, under the depressing influence of the poison, became a mere thread, and, tossing on the ground and screaming with agony, he presented a pitiable spectacle indeed. What was to be done now? I had neither Bibron's nor any other antidote, nor anything at all appropriate to the case, except a gallon of whisky, the private property of our Inspector, Maj. Ned Moore, and myself, in which we had that morning invested four hundred and fifty ($450) dollars. Whisky was whisky in Confederate times.

We had taken a drink each out of the jug that morning, and determined that this whisky should be "linked sweetness long drawn out." It was hard to give it up, and Moore was not there to consent. I looked at Boxley, and looked at the much-prized liquor—humanity triumphed—

> "With a sigh I resign
> What I once thought was mine,"

and commenced pouring whisky down Boxley's throat to the tune of half a tumblerful every five minutes, and begrudging every drop that I gave him. After taking half a gallon he became more quiet, and the pulse gained some volume, but a quart additional was administered before he fell asleep. He slept about an hour and then awoke, screaming again with agony, and the pulse was still too much depressed to risk the sedative effect of morphine. I now gave him the remainder of the whisky, and this producing no amelioration of the symptoms, I procured and administered another quart before he again fell asleep. He now slept three hours. He had taken one gallon and a quart of whisky, less two moderate drinks, without any symptom whatever of intoxication.

When he awoke from his second nap, he was still suffering much pain, but the swelling had greatly subsided, and as the pulse had now reacted well, I gave him a grain of morphine,

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under which he was enabled to sleep all night, and the next morning I found him perfectly easy, and apparently well. The tip of the finger, however, was black, and ultimately sloughed, destroyed by the intensity of the poison.

The recovery was uninterrupted, with the exception of an expression of the poison in the following spring, in the shape of a scaly eruption on the legs, not unlike icthyosis, but not identical with it. This very eruption I met with once before in a man, who traced it to the poison of a snake-bite, and with him it recurred a number of successive springs. This tendency to a return of both animal and vegetable poisons, in the springs of subsequent years, is a remarkable, but unexplained, phenomenon.*

This is the only case of acute snake-bite that I ever saw, but this case satisfied me that the tendency to death is from the depressing effect of the poison on the vascular system, and hence the value of alcoholic stimulants. It is also remarkable that the whole force of the liquor is expended in neutralizing this depression; and hence it is very difficult, if not impossible, to induce intoxication.

Maj. Moore's feelings, on his return, tired and thirsty, can be better imagined than described. A year ago I heard from him, and he had not yet become reconciled to the loss of that whisky. He still insisted that "when men were so plentiful and whisky so scarce," Boxley should have been permitted to die. "It was a shame," he said, "that in such times one man should have been allowed, at one sitting, to consume five quarts of whisky."

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* Why, certainly, this is due to the temperature of the season.—E.

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Extracts from Home and Foreign Journals.

SURGICAL.

COLLATED BY PAUL F. EVE, M. D.

METHODS OF TREATING HYDROCELE.

Hydrocele is one of those affections which, at different times, has had a great variety of treatment. Among the plans resorted to, from time to time, may be mentioned:

1. Treatment by acupuncture.
2. The application of an evaporating lotion, such as muriate of ammonia.
3. Simple tapping.
4. Laying open the sac, a plan now abandoned.
5. Excision of a portion of the tunica vaginalis, also now given up.
6. Evacuating the fluid, and introducing some caustic on the end of a probe.
7. The introduction of a tent into an open wound, as performed and praised by Paré, Larrey, and others.
8. Passing a seton through the vaginal sac, and there retaining it for twenty-four hours, a procedure similar to the last, and said to be common among the Arabians.
9. Tapping and injecting the vaginal sac, an operation first recommended by Celsus, who advised nitre as the best injection. This plan was revived by Monro, the elder, and of late years popularized by Sir Ranald Martin, whose claim to originality lies in his choice of iodine as the most suitable stimulating agent. This has practically superseded all other modes.

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All these plans are open to one common objection, viz., that they are occasionally unsuccessful, and, at times, even hurtful in their results.

Dr. S. Messenger Bradley, of Manchester, (*British Medical Journal*, June 1, 1872,) suggests the plan of *tapping and strapping* as a simple, and, in most cases, efficient means of cure, and one which should, in all cases, be tried before the injection of iodine or other stimulant is resorted to. This method is based upon the fact that the walls of pyogenic membranes, such as those of abscesses, sinuses, and the like, will often agglutinate when brought into firm and continual apposition. Dr. Bradley argues that, inasmuch as the secretion poured out in hydrocele is of an inflammatory and not a dropsical character, his mode of tapping, and then firmly strapping the affected side with soap-plaster, will generally be followed by an obliteration of the vaginal sac, and a consequent radical cure. The pressure should be continued for several weeks. The result of this treatment in the four cases in which it has been applied, appears to bear out fully the conclusions of the writer.—*Boston Medical and Surgical Journal.*

URETHRAL STRICTURE.

The *Medical and Surgical Reporter* for July contains an article by the venerable Dr. J. P. Mettauer, copied from the *Boston Medical and Surgical Journal*, from which we make the following extract:

* * * A grooved director, of small size, was next entered, and passed on to the extremity of the sound in the urethra, the latter instrument being simultaneously partially withdrawn, to make room for the director, which was made to follow it about an inch. With the groove of the director to the rapheal line, and a sharp-pointed narrow bistoury directed by it, the urethra and perineal strictures were laid open fully an inch, which, after the blood was cleared away, brought into view an exceedingly minute opening, rendered more clearly distinguishable by the passage of a few drops of urine, situated on one side of the urethra, and fully three lines above the

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bottom of the cul-de-sac. This orifice was now dilated with the point of the bistoury, so as to allow the director to be introduced, which entered readily, and was carried quite into the bladder, and upon it, by rotating it, the stricture was divided on four sides. Removing the sound and director, and sponging away the blood, a No. 12 gum catheter, well oiled, was introduced from the meatus through the divided stricture quite into the bladder, which, after closing the perineal wound with sutures of leaden wire deeply inserted, completed the operation, with the exception of adjusting and confining the catheter in the urethra and bladder, washing out the vesical cavity with cold water, to cleanse it of blood, and adapting a stopper to the catheter to prevent accidental discharges of urine.

The patient was confined in bed until the perineal wound healed; cold water dressings were employed to the wound by the use of compresses, the bowels not allowed to be disturbed for four days, and a diet of liquids was enjoined. The wound healed in a great degree by the first intention, but the ligatures were suffered to remain until a fresh tube was introduced on the twelfth day. In three weeks the patient had recovered entirely, and without a single untoward occurrence, and is yet alive, a hearty old gentleman of over sixty-five years of age.

SINGULAR ABDOMINAL TUMOR.

A singular case of abdominal tumor is reported by M. W. Alfred, of Galesburg, Michigan, to the *Medical and Surgical Reporter*. The following is a description of the autopsy, made twenty-four hours after death:

On laying aside the parietes of the abdomen, the bowels were found much displaced by the tumor, and adherent to it wherever they came in contact with it. The stomach was not adherent, but the duodenum was embraced in it to the extent of three inches, it seeming to permeate its walls, and from which it could not well be dissected. The arch of the colon was much depressed and firmly attached, and the greater omentum agglutinated to it.

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In the right side, where so much pain had been felt, the kidney was enveloped by the tumor, and removed in it. The kidney, however, was much atrophied, little remaining but the cortical portion. It was attached to the spinal column by its posterior surface, from the prominence of the sacrum up to the first dorsal vertebræ. This attachment was firm enough to have sustained the weight of the whole body.

This growth undoubtedly had its origin from the prominence of the sacrum, and thence extended upward, because, as the swelling of the abdomen increased, the tumor constantly ascended. The left kidney was not involved. *It had no connection whatever with the uterus or ovaries.*

At its summit it was attached on the right side to the liver, to the extent of two square inches. On being removed, it weighed about five pounds. It proved to be a firm, leathery, *fibroid* mass, and perfectly uniform from surface to centre.

The lady strongly desired its removal during life, and was somewhat encouraged to submit to an operation by some who pronounced it an "ovarian tumor," which might be removed with little danger. She and the family were restrained from so rash a proceeding by physicians in whose judgment they confided, and she was allowed to die a natural death.

The *post-mortem* examination showed most conclusively how impotent for good, and how potent for harm, such a procedure must have been.

LIGATURE TO FIRST PORTION OF SUBCLAVIAN ARTERY.

A long paper on this subject appears in the last volume of Guy's Hospital Reports (*The Practitioner*, June, 1872,) by Mr. Poland, in continuation of a similar one in the preceding volume. In the present paper, the principal points taken up are—

1. Ligature of the first portion of the subclavian artery for the cure of subclavian aneurism. Eleven cases are on record of this operation having been performed. As Mr. Poland observes, it is fraught with danger, and is, for the most part, undertaken against the acknowledged rules laid down for the

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success of ligature of a large artery in aneurism, the vessel being tied close to the aneurismal sac, at a point where large and important vessels are given off from it, and where it is in proximity with nerves, veins, and the pleura. In some subjects one incision is sufficient, but generally two will be found requisite. All the cases recorded, with one exception, were of the right subclavian. The operation is pronounced by Ferguson the most difficult in surgery, and it is doubtful whether it should be again attempted, every case having proved fatal, though with different symptoms. The longest duration of life was thirty-six days.

2. Simultaneous ligature of the first portion of the subclavian and common carotid arteries. This operation has also proved uniformly fatal.

3. Ligature of the innominate. This has been performed twelve times without one case of success, though in a case under Græfe the patient lived to the sixty-seventh day.—*Philadelphia Medical Times.*

[Smythe is said to have done it. He declined bringing his case before the Surgical Section, in New Orleans, 1869.—E.]

INTUSSUSCEPTION.

A. S. DuBois, M. D., of Auburn, California, writes to Dr. J. F. Morse, under date of June 7th, 1872, as follows. We copy from the *Western Lancet:*

"According to promise, I write you about the *post-mortem* examination of little Harry G——. Dr. T. M. Todd and myself made the examination four or five hours after death. Death was from inanition, the body being emaciated to an extreme degree; the liver was a little enlarged and somewhat softened; the spleen and kidneys were normal; the bowels were healthy, except at the place of intussusception; a portion of the ileum had passed through the ilio-cœcal valve, and formed a mass about two inches in diameter and four inches in length, which lay in the colon, a part of the ascending colon having been drawn into itself, and so altering its natural position that the mass lay diagonally across the body in the colon,

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thus forming a double intussusception, as described by Dr. J. L. Smith, in the *American Journal of the Medical Sciences* for January, 1862. The mass being movable, had enlarged the whole transverse portion of the colon and thickened its walls, so that, at times, when it was full, the tumor seemed six or seven inches long by three inches broad; the sloughing had opened a communication from the ileum into the colon, at a knuckle or bend in the intestine, about three inches within the colon; the portion of intestine occluded was formed into a solid mass by the lymph effused on the peritoneal surfaces and into the cellular tissue; it was smooth on the upper surface, but underneath, gangrenous, and quite large pieces had sloughed and been passed at stool, with some blood, and much straining at short intervals every day from about the tenth to the nineteenth day of May. During this period, also, there was quite severe inflammatory fever simulating dysentery. About the nineteenth of May the fever subsided, and no more blood passed, but instead, matter and gangrenous pieces, many times daily, with straining and nausea, until death. Pain at short intervals was a constant symptom from the time I first saw him in April. The treatment was, from the first, supportive."

SWALLOWING FALSE TEETH—RELIEVED BY AN EMETIC.

A young woman rushed into my surgery one night, in a high state of excitement, saying she had swallowed four of her front teeth, plate, hooks, and all. I told her to sit down and calm herself, and having tried with the probang to find the situation, I ascertained it was lodged midway in the œsophagus. I made her take a powerful emetic of sulphate of zinc, and added plenty of warm water, and in about fifteen minutes afterwards she vomited, and we were both much relieved by hearing the click of the plate and teeth in the basin. The power of the emetic relaxed the spasm in the œsophagus, and thus sent forth the foreign body, which could not have been pushed down without fearfully lacerating the parts and endangering life.—ORLANDO HAVILAND, M.R.C.S.E., *in The Lancet.—Dental Cosmos.*

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HEALING OF ULCERS BY SERUM.

I have had several opportunities, during the year 1871, of trying the method I explained the previous year, of healing ulcers by covering them with serum. I propose to enlarge the observations during the coming year, and vary the methods already employed. Several striking results have, however, been got. In one case, for example, a sore the size of a penny was healed in forty-eight hours; in another, one of three ulcers, each about the size of a florin, was experimented upon, and closed in three days, while the other two, in all respects similar, but treated by "water-dressing," remained unchanged. In another case, four hours and a half sufficed to produce a thin bluish covering of epithelium, like the "healing line" along the edge of contracting sores. Considerable care is requisite to ensure success, as the fluid must be carefully protected from contact till it "sets." When these experiments are complete, I will give an account of them.—*Glasgow Medical Journal.*—*Canada Lancet.*

TREATMENT OF PHAGEDENIC CHANCRE.

Mr. Pollock, of St. George's Hospital, London, invariably treats this disease by from fifteen to twenty drops of laudanum every four hours, combined, in some cases, with half a drachm of compound spirit of ammonia.—*London Lancet,* December 16, 1871.—*New Remedies.*

ARRESTING HEMORRHAGE AFTER EXTRACTING TEETH.

In the March number of this journal (vol. ix. p. 128), we published a method of arresting hemorrhage after extraction of teeth, recommended by Dr. M. F. Shields. The *American Journal of Dental Science* copied the paragraph in the August number, and added:

"A better method, we conceive, and one we have been following for years past, is to saturate a pellet of cotton with sandarach varnish, and on the end of this take up a sufficient quantity of the powdered subsulphate of iron, which is car-

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ried direct to the mouths of the bleeding vessels in the alveolar cavity, immediately after this cavity has been cleansed of blood."

TRANSFUSION OF BLOOD.

A very interesting case of the successful transfusion of blood, from one person to another, is described by Professor Judgeson, of Berlin, in a recent number of a medical journal published in that city. His patient was a man, twenty-eight years of age, who had been poisoned by phosphorus, having taken a solution of the ignition mass of eight bundles of matches on the 9th of December. On the 11th of February, the activity of the heart having been excited by champagne, a transfusion of 580 cubic centimetres of blood, which had just been taken from three persons in good health, was effected, into a vein of the arm—500 cubic centimetres of the patient's own blood being at the same time taken from an artery. An improvement in his condition at once set in, and he was able to leave his bed early in March.—*Virginia Clinical Record.*

MEDICAL.

BY W. L. NICHOL, M. D.

ASTHMA, ANGINA PECTORIS, AND GASTRALGIA.

These three affections are intimately allied, being neuroses of different portions of the pneumogastric nerve, of central origin. These neuroses are, in great measure, owing to inherited peculiarities of the central nervous system. There is only one remedy which is of supreme efficacy in all these affections, namely, arsenic. In doses of five minims of Fowler's solution, it gives rapid relief in many otherwise obstinate

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cases. It is particularly useful in that form of gastralgia which accompanies asthma. There are a certain number of persons who cannot tolerate arsenic, and the subcutaneous injection of the 1-120th to the 1-60th of a grain of strychnine should in that case be tried. If given by the mouth, the proper dose is from 1-40th to 1-24th of a grain three times a day. —*Braithwaite's Retrospect.*

TREATMENT OF ASTHMA.

Asthma should, with a view to its successful treatment, be viewed as a neurosis of the pneumogastric nerve, of which, sometimes, the cause is disturbance of healthy function at the brain end, and sometimes at the gastric or hepatic. Thus bismuth and hydrocyanic acid are of great value when the neurosis is of gastric origin. Carlsbad salt, nitric acid, and, at times, small doses of mercury, are all unmistakably curative when the hepatic system requires relief. Other remedies, such as ipecacuanha, belladonna, and nux vomica, are of use in appropriate forms of pneumogastric disturbance; whilst iodide of potassium, sulphur, and arsenic, are the remedies indicated if there is a gouty or rheumatic diathesis at the root of the malady.—*Ibid.*

GONORRHŒA—CARBOLIC ACID.

The following is an excellent injection in gonorrhœa: Carbolic acid, eight grains; tannic acid, eight grains; glycerine, half an ounce; water to one ounce.—*Ibid.*

SYPHILIS—IODIDES OF AMMONIUM AND SODIUM.

It sometimes happens that, in cases of later secondaries, or tertiary syphilis, requiring the prolonged use of iodide of potassium, the drug ceases to produce any result, or is no longer tolerated. This may be possibly owing to the deteriorating action of the base on the blood. Ammonium and sodium are not open to the same objection, and iodides of either of these bases should be substituted.—*Ibid.*

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TUBERCULOUS PHTHISIS.

Dr. E. Long Fox (*British Medical Journal*) sums up his remarks as follows:

1. There are several forms of disease included under the head of phthisis.

2. Tubercle, whether of the lungs or of other organs, is due to a constitutional disease, and this is shown by death occurring without *post-mortem* results sufficient to have caused it.

3. Tubercle often exists quite independently of caseous deposits of vomicæ.

4. This morbid condition is inheritable, but may be developed *de novo* by debilitating influences.

5. Its possible manifestations at all ages, and its frequent non-manifestation until the age of puberty, are only analogous to what is seen in other constitutional and inheritable diseases.

6. Chronic pneumonia, found associated with miliary tubercle, is not connected with it as cause with effect. The tubercle only becomes developed in cases in which the patient has previously had the tuberculous taint of constitution.

7. Some fatal chronic pneumonias may owe their irremediable properties to the same constitutional weakness, even where no miliary tubercle is discovered after death.

8. In general, non-tuberculous phthisis can be distinguished from tuberculous by clinical phenomena, and especially by the use of the thermometer.—*Half-Yearly Abstract of the Medical Sciences*, July, 1872.

PHOSPHORUS POISONING CURED BY OIL OF TURPENTINE.

Dr. Lichtenstein reports (*Berlin. Klin. Wochenschr.*) the case of a girl, nineteen years old, who cooked a steak of meat with the heads of eight friction matches, and partook of the same for food. Soon after—precise time not given—she was attacked with a pain in the stomach, and vomiting of phosphorescent matter, mixed with coagula of blood. Twelve drops of Ol. Terebinthinæ in milk being administered, the pain in the stomach and vomiting ceased. Subsequently the

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vomiting returned, the discharges presenting traces of blood, but none of phosphorus. An emetic of ipecacuanha and tartrate of antimony was given, and the turpentine in barley-water continued. The vomiting now became almost entirely free from blood, till at the end of two hours, the only complaint made was loss of appetite; no after symptoms. The case is adduced by Dr. Lichtenstein as a further evidence of the correctness of the reports of Personne, Andans, Köhler, and others, in favor of oil of turpentine as an antidote against poisoning by phosphorus. In a comment upon the report of Dr. Lichtenstein and his conclusion, Dr. Schultzen remarks, that during the past few years he has observed, in the wards of the Berlin Charité, some thirty to forty cases of phosphorus poisoning, of which nearly one-half terminated favorably, notwithstanding no oil of turpentine was given. The prognosis of a favorable event is to be based solely upon the occurrence of a free vomiting, either spontaneously or induced, soon after the poison has been taken. In Dr. Lichtenstein's case, vomiting set in immediately after the phosphorus was swallowed; and, according to Dr. Schultzen, to this is to be mainly, if not entirely, attributed the safety of the patient.—*Ibid.*

ON THE TREATMENT AND THE ORIGIN OF PURULENT OPHTHALMIA IN NEW-BORN CHILDREN.

R. Liebreich, Ophthalmic Surgeon and Lecturer to St. Thomas's Hospital, writes (*Medical Times and Gazette*) on this subject as follows:

The treatment consists, first, in careful cleansing; secondly, in the local application of cold; and, thirdly, in cauterizations with mitigated nitrate of silver (one part of nitrate of silver and two parts of nitrate of potassium fused together). As regards the cleansing, it is, above all, necessary to explain to the attendants the importance of it, for, ordinarily, the fear of injuring the child prevents them from properly opening its eyes in order to remove the secretion. Mr. Liebreich does not recommend syringes, so generally used, for cleansing—first, because they are dangerous to the attendants, who, in using them,

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may easily have some of the contagious matter spattered into their eyes; secondly, because by this method the secretion is not completely removed, even after pouring much water over the child. A fine sponge, or small piece of moistened linen rag, are preferable for effectually cleansing the conjunctiva.

The application of cold, if made in a careful and suitable manner, is of great assistance in the treatment. In the mildest form of the disease this application alone may even effect a cure in a few days. It is then only necessary to apply, for several hours a day, small linen rags, moistened by being dipped in cold water, changing them constantly. In the more serious cases, on the contrary, when there is much swelling, redness, and heat in the eyelids, and a copious discharge of thick yellow purulent secretion, it is necessary to apply, day and night, without intermission, small rags, previously placed upon ice, and to renew them continually. Later, when the elevated temperature begins to fall, the applications may be discontinued during the night, and gradually reduced, according to the course of the disease. In order to prevent the child from taking cold, it is necessary that the rags should be of a size merely to cover the eyelids, without touching the bridge of the nose, and not to make them too wet.

The real curative treatment, cauterization, should only be done with mitigated nitrate of silver. The eyelids must be reversed one after the other, and, after being carefully cleansed, touched with the caustic, which must be passed over all the swollen and red part of the mucous membrane. Before replacing the eyelids in their natural position, it is necessary to neutralize the free nitrate of silver by a drop of salt water. For the first few days only of the disease we may restrict the treatment to the application of cold, and then commence the cauterizations; repeat them once a day, never more frequently, and, after an evident reduction of the disease, once every two or three days. It is important not to repeat the cauterization until the scar of the previous one has disappeared.

To drop weak solutions of nitrate of silver into the eye is not advisable, even in the mildest forms; for the graver forms

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it is completely insufficient. Cauterization with pure nitrate of silver ought never to be used, neither in this nor in any other disease of the conjunctiva, as it is impossible to limit its effects. The slightest touch with pure nitrate of silver, in fact, produces a strong cauterization, not only not limited to the surface of the mucous membrane, but attacking the subjacent connective tissue. The cicatrization which is the result of such cauterizations produces a permanent irritation of the eye, which cannot be removed by any possible means. None of the other known caustics can replace the mitigated nitrate of silver in the treatment of purulent ophthalmia.—*Ibid.*

INFLUENCE OF TRADE IN PREVENTION OF CHOLERA.

The attention of the French Academy has been called by M. Burcq to the immunity enjoyed by workers in copper during epidemics of cholera. Among the eight hundred victims of this disease in Bagdad last year, only one belonged to the trade of coppersmith.

[We have been told by the very intelligent foreman of a bronze-casting establishment in this city, that during an epidemic of cholera in Paris, where he was employed in an extensive bronze-foundry, not a single instance came to his knowledge of a workman in bronze becoming affected with the disease. Their freedom from the affection was attributed not to the influence of the metals, but to the mineral acids which are so extensively used in this trade.—Ed.]—*Medical Record.*

IMPACTION A CAUSE OF VESICO-VAGINAL FISTULÆ.

Dr. S. C. Busey, of Washington, D. C., from an analysis of Dr. Emmet's cases, undertakes to show the most frequent causes of vesico-vaginal fistulæ, and thus briefly prefaces the same:

"With a view of determining, if possible, the most frequent cause of vesico-vaginal fistulæ, I have made the following analysis of Dr. Emmet's cases, as reported in his recent work entitled *Vesico-Vaginal Fistulæ.*

"At page 20, Dr. Emmet says: 'After a careful review of

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all the recorded cases admitted to the Woman's Hospital since its foundation (twelve years), he could not satisfy himself that more than three cases out of the whole number should be regarded as having resulted from instrumental delivery.'

"The lesson taught by this analysis is that impaction is the usual cause, and that delay in resorting to artificial means to expedite delivery, after it has occurred, incurs not only the danger to the mother, but imperils the life of the child. Of these sixty-five cases, fifty children were certainly lost. Though instruments were employed in very many of the cases, it is perfectly apparent that the error was in not having resorted to artificial means sooner."—*Journal of the Gynæcological Society of Boston.*

RETAINED PLACENTA.

We extract the following from an article by Alexander Murray, M. D.:

I was called to see a woman sixty hours after the birth of her fourth child, with a retained or adherent placenta. She had been attended by a midwife, who, in her attempts to extract the placenta, broke the funis close to the uterus. As she had occasionally irregular feeble uterine pains of an expulsive character, I endeavored to extract the placenta by traction on the broken portion of the cord, and by grasping the fundus of the uterus through the abdominal parietes, but failed in the attempt. I was not allowed to use the placental forceps. The neck of the uterus was considerably contracted for so short a time after the birth of the infant, so that I could not, with prudence and safety to the woman, introduce my hand into the uterus to remove the placenta. Faradization was employed, using the primary current, rapidly interrupted, of moderate strength, by means of Hammond's cup-shaped uterine electrode, directly to the cervix uteri with a negative connection, and the positive pole (labile) to the abdomen over the uterus, with a large, well-moistened, sponge-covered electrode. After twenty minutes' application, the placenta was expelled with considerable pain and force. No hemorrhage or inflammation

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followed. A small portion, about the size of a silver dollar, of the uterine surface of the placenta, presented the appearance of recent adhesion to the uterus, and of an agglutinated fibrous character.

Faradization can be employed with satisfactory results in uterine hemorrhage, retained placenta from atony of the uterus, tedious labor from inertia of the womb, polyps, hydatids, &c. &c. It will be found a more convenient, safer, and a better means, of exciting uterine contractions, than the administration of ergot. Furthermore, it will not, in any case of labor, injure the infant.—*Medical Record.*

DEATH AFTER TAKING CHLORAL HYDRATE.

F. Jolly (*Bayer. Aerztl. Intell.-Blatt.*) states that, in the course of two years, during which he has employed the hydrate of chloral in the treatment of the insane, he had met with two cases of sudden death following its use. The dose was, in each case, below the average, and the chloral was chemically pure. The patients, during life, presented no contra-indications to the use of the remedy. One had taken the chloral at night for four evenings in succession. On the fifth evening, after taking it, the respiration and circulation at once ceased. The necropsy showed anæmia of the brain, acute œdema of the lungs, hyperæmia of the abdominal organs, a perfectly healthy heart and vessels, and dark fluid blood. In the other case chloral had been given twelve days in succession, with the effect of producing sleep after a short stage of excitement. On the thirteenth day the patient died, after some stertorous breathing, a quarter of an hour after the dose. There was here found moderate œdema of the lungs; blood was fluid, but normally distributed; the heart was large and flabby, and its muscular structure was pale, but not friable.—*Ibid.*

THE property of the University of Pennsylvania, at the corner of Ninth and Chestnut streets, Philadelphia, has been selected as the site of the new Post Office building, which will necessitate an early removal of the Medical Department.

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MIXED ANÆSTHESIA IN OBSTETRICS.

The effect produced by the new combination of morphia and chloroform, just now so extensively employed in France, is called, by Claude Bernard, a condition of *mixed anæsthesia.* In a note from Guibert, presented by Claude Bernard to the Paris Academy (*Gazette des Höpitaux,* June 25, 1872,) the method of its employment in obstetrics is reported as follows:

It is in cases of difficult labor that this analgesia may be induced with the happiest effects. It diminishes the pains in marked degree, and may be continued for several hours without incurring the least danger to the mother, without injuring the condition of the infant, without modifying uterine contractions to any extent, and without increasing the subsequent danger of hemorrhage.

I am in the habit of employing this method as follows: I make a subcutaneous injection into the forearm of about one ctgr. of chlorhydrate of morphia, at the moment when the pains begin to be severe, or when agitation with anxiety and discouragement supervenes. A quarter of an hour after the injection I commence the inhalation of chloroform, by the ordinary method, at the beginning of a uterine contraction. So soon as a dozen inspirations have been made, the patient experiences, instead of an augmentation, an alleviation of the pain, while the contractions continue in force. I suspend the inhalations so soon as the pains are over, and again administer them on their recurrence. In this way I continue throughout the whole labor, administering chloroform only during contractions.

The state of agitation and anxiety is succeeded thus by a condition of calm and comfort, in a contrast which is heightened by expressions of the liveliest gratitude on the part of the patient. When the head has reached the perineum, and the moment of agony has arrived, there need be no fear nor hesitation to again inject, this time with one-half ctgr. morphia, which is sufficient now to render supportable—at times, indeed, to absolutely nullify—the atrocious pains of passage.

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The analgesia thus induced, moreover, diminishes, in marked degree, the extreme fatigue incident to severe labor.

I have notes of a case of pelvic version in a trunk-presentation, practised more than sixteen hours after the escape of the waters, executed with the greatest facility under this condition of analgesia, the mother being so far conscious all the time, as to be able to answer all questions addressed to her, uttering neither cry nor complaint.

The combined action of chloroform and morphia completely dissipates that tetanic contraction which renders version in these conditions so difficult and painful.

This condition of analgesia without anæsthesia may be easily maintained, if the precaution be adopted to frequently interrupt the inhalations of chloroform.

In a case of mixed anæsthesia induced for an amputation of the breast, I observed a considerable reduction of the pulse. It fell gradually from 100 to 54 in the minute. There was not the least danger throughout. Half an hour after the operation, the pulse slowly increased to 80 per minute.—*Philadelphia Medical Times.*

THE EMPLOYMENT OF ELECTRICITY IN LABOR.

The *Bulletin Gén. de Thérap.*, March 30, 1872, has an able thesis entitled *De l'électricité appliqué à l'art des accouchements*, by Dr. Tachard, Externe de la Maternité, etc., Paris. He gives the results of the experiments of M. de Saint Germain Tachard; then follow the nineteen observations collected by the author, cases taken from the inmates of the Maternité indiscriminately. His deductions were as follows:

1. In no case were uterine contractions induced where they had not previously been manifested spontaneously.

2. In every instance in which labor had commenced, and the pains had progressed regularly and periodically, whenever the two poles were applied at the lumbar region, in a very short time the manifestation of a new activity in the contractions, and shorter periods of interval, were noticed.

3. All the contractions produced or provoked by electricity

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were much longer and much more painful than the contractions of spontaneous origin.

4. The dilatation of the os always seemed to increase with rapidity.

5. In all the cases hitherto observed, the expulsion of the placenta followed immediately upon expulsion of the child.

6. In no case did the child suffer in any way from the electric action. The same could be said for the mother.—*Medical Record.*

INHERITED SYPHILIS.

Dr. A. D. Hall, London correspondent of the Philadelphia *Medical Times*, in a conversation with Mr. Jonathan Hutchinson, upon the external characteristics of inherited syphilis, referred to a peculiar appearance of the temples in these cases. It consists of a furrow, or excavation, in the space between the tygomatic arch and the superciliary ridge of the orbit. It was well borne out by a number of cases seen at the Royal London Ophthalmic Hospital on that special occasion. He referred to the great frequency with which syphilis was seen at the hospital.—*Ibid.*

XYLOL IN SMALL-POX.

Dr. Richard Moffett, of Philadelphia (*Medical Times*), gave the following prescription to a patient with confluent small-pox, with a happy effect:

℞—Olei xylol ..... gtt. cc.
Pulv. acaciæ ..... q. s.
Syrupi simplic.....
Aquæ..... āā f. ℥ j.
S.—A teaspoonful every two hours.

He has tried this remedy in a number of cases since, and its use has always been attended with good results.—*Ibid.*

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Editorials, Reviews, Etc.

HONOR TO WHOM HONOR IS DUE.

We are a little astonished that an American journal (the *Medical Times*, of Philadelphia,) should quote from *The Practitioner*, an extract, under the head of "Treatment of Subclavian Aneurism," without making any mention of the case of Smythe, of New Orleans, thus ignoring the claim of American Surgery to the honor of being the first to cure this affection by ligation of the innominata, common carotid, and vertebral arteries. The operation for subclavian aneurism is American. Mott was the first to propose and perform ligation of the innominata for this affection—J. Kearney Rodgers the first to suggest the ligation of the vertebral and thyroid axis, in addition to the main vessel supplying the aneurism; but it was left to Smythe, a young surgeon of New Orleans, to carry out successfully the combined suggestions of these two great New Yorkers. The patient of Smythe was presented to the American Medical Association, at its session in New Orleans, in 1869, five years after the performance of the operation, as a living monument of the skill of an American surgeon. We examined this case both publicly and privately, and we are satisfied that it was a grand and perfect success.

In the operation, as performed in 1864, a ligature was applied to the innominata, one-fourth of an inch below the point of division, and at the same time to the carotid, one inch above its origin. Hemorrhage occurred on the fifteenth day—con-

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trolled by plugging the wound with small shot. Hemorrhage recurred on the thirty-third and fifty-first days, and a ligature was applied to the vertebral on the fifty-fourth day.

W. T. B.

REVIEWS.

LECTURES ON THE PRINCIPLES AND PRACTICE OF PHYSIC. By Sir THOMAS WATSON, Bart., M. D., F. R. S., &c. &c. A new American, from the Fifth Revised and Enlarged English Edition. Edited, with additions and numerous illustrations, by HENRY HARTSHORN, A. M., M. D. Philadelphia: Henry C. Lea, 1872. In two volumes, 8vo., pp. 880 and 332. For sale by W. T. Berry & Co., Nashville, Tenn.

These lectures were first introduced to the profession nearly thirty years ago. Since that time they have passed through several editions, thus proving the high esteem in which they were held by the profession. The present edition has been thoroughly revised, which was rendered necessary by the rapid advance which has been made in medicine during the last few years. In the revision, the work has not lost any of that beauty of style which is so rarely met with in medical writings, and which was so fascinating to the readers of the earlier editions. In our opinion, no work has exercised so great an influence over the practice of American physicians of the present generation as *Watson's Practice.* The new edition has been looked for with pleasure, and will be heartily welcomed by the profession throughout the country.

CLINICAL LECTURES ON THE DISEASES OF WOMEN. By Sir JAMES T. SIMPSON, Bart., M. D., Late Professor of Obstetrics, University of Edinburgh. Edited by A. R. SIMPSON, M. D. New York: D. Appleton & Co., 1872. Pp. 789.

It is simply necessary for us to say that a work, much of which for the first time is presented to the public, upon the

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Diseases of Women, by Simpson, can be had, to insure it a prominent place in the library of every medical man, interested in that most interesting of all studies—the Diseases of Women. We congratulate the profession that the preparation of the work has fallen into editorial hands so competent as the present Professor Simpson.

THERMIC FEVER, OR SUN-STROKE. By H. C. WOOD, Jr., M. D., Professor of Medical Botany, &c. Boylston Prize Essay. Philadelphia: J. B. Lippincott & Co., 1872. Pp. 128. For sale by W. T. Berry & Co., Nashville.

In our sanctum the thermometer stands 96° F., and we know that, under such circumstances, the author, who has written so well upon the effects of heat, will pardon us for not making a more extended notice of his neat little volume. We can only say to the profession, that its perusal will give them some good practical notions in regard to the management of cases of sun-stroke. Buy it.

—o—

PRIZE ESSAYS.

The Committee of the American Medical Editors' Association, appointed to consider and make known a proper subject for prize essays, have recommended the following for the prize to be awarded in May, 1873: "*The Pathology and Treatment of Diseases of the Ovaries.*" And for the prize to be awarded in May, 1874, the following: "*At what stages of Pulmonary Tuberculosis is a Change of Climate desirable; what are the Principles which should govern us in choosing the kind of change to be made; and the best localities in North America to send patients of this class!*" The prize offered is $100, and competition is open to all medical *editors*. Is it not open to all physicians?

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WANTED,

To Complete Files of American Medical Journals in the Library of the Surgeon-General's Office.

1. "Nashville Journal of Medicine and Surgery," by Bowling and Eve, bi-monthly, Nashville, Tenn. Want Nos. 4, 5, 6, vol. iii.; Nos. 2, 5, vol. iv.; No. 5, vol. v.; Nos. 1, 2, 3, vol. vi.; and volume xxi. entire.
2. "Southern Medical and Surgical Journal," by Eve and Garvin, monthly, Atlanta, Ga. Want No. 1, vol. iii.; Nos. 1, 2, 3, 4, vol. vi.; Nos. 1, 4, vol. viii.; No. 1, vol. ix.; No. 4, vol. x.; Nos. 1, 2, 3, and 5, vol. xii.; Nos. 11 and 12, vol. xvii, and all subsequent, except Nos. 1 to 4, vol. i., third series; also, index for vol. xi.
3. "Oglethorpe Medical and Surgical Journal," by Byrd Steele and Taliaferro, bi-monthly, Savannah, Ga. Want Nos. 3 and 6, vol. iii.; vol. iv., and all subsequent, if any.
4. "East Tennessee Record of Medicine and Surgery," by F. A. Ramsey, Knoxville, commenced about 1852. Want all, or any part.
5. "New Orleans Monthly Medical Register," by J. F. Axson. Want Nos. 1, 2, 4, 5, 6, 8, 12, vol. i. (1851–2); Nos. 2, 5, 7, 8, 10, vol. ii., and all subsequent to vol. ii.
6. "Southern Journal of the Medical and Physical Sciences," by King, Jones, Curry, and others, bi-monthly, Nashville. Want Nos. 3, 4, 6, vol. ii.; Nos. 2, 3, 4, vol. iv.; Nos. 3, 4, 5, vol. v.; Nos. 2, 3, 5, 6, vol. vi., and all subsequent to vol. vi.
7. "Southwestern Medical Advocate," by J. Conquest Cross, monthly, Memphis. Want all, except Nos. 1, 2, 4, 5, vol. i. (1847).

The numbers of this journal, advertised for as above, may be sent to our office, and we will pay twenty-five cents for each number, or give credit for the amount on present subscription list. Missing numbers of the other magazines should be sent direct to the Surgeon-General's office, Washington, D. C.

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NASHVILLE

JOURNAL OF MEDICINE AND SURGERY.

SECOND SERIES.

VOL. 10. NASHVILLE, OCTOBER, 1872. NO. 4.

Original Communications.

MICROSCOPY OF MINUTE ORGANISMS.

Second Paper.---Read before the New Orleans Academy of Sciences,

BY S. P. CUTLER, M. D., CORRESPONDING MEMBER.

INFINITESIMAL INFUSORIA. OR VITAL UNITS.

EXPERIMENTS, CONTINUED.

SINCE my previous lecture, I have made extensive researches into metals, oxides, salts, chlorides, iodides, bromides, and great numbers of organic substances, animal and vegetable, and find the same identical forms in every thing, without any exception, whenever the forms are distinctly isolated so as to be distinctly seen.

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Since reading my previous paper, I have changed my views entirely as to their being organisms, or infusoria; I have now come to the conclusion, which I think I am fully sustained in by my discoveries in my first paper, that the minute objects with perpetual motion, are nothing more nor less than the ultimate atoms of matter—that have been considered by Mr. Tyndall, Huxly, and many others, as *ultra microscopic,* or without the range of optical research, and belonging to the *infinite,* and not to man's comprehension.

I find these within practical limits, that any inexperienced person can readily see and comprehend, when explained to him.

Having verified my observations in such a variety of ways, that there no longer remains any doubt in my mind as to their true place in *nature,* the idea that molecules are compounds of ultimate atoms, grouped into a compound atom much larger than the ultimates, I think will have to be abandoned, from this fact, namely, that all atoms or molecules, either simple or compound, either chemical compounds, animal or vegetable compounds, or compounds promiscuously thrown together from various simple elements, in the form of dust, all present one uniform appearance—so much so, that the closest scrutiny reveals not the slightest distinction. No matter how many different kinds of dust, tinctures, solutions, salts, or anything else, are thrown together under the instrument, the atoms, or units, all appear to be the same thing. The only discoverable difference consists in specific gravity, or tendency to precipitate on the glass, in some heavy metals and salts, and thereby arrest their motion, and in some instances, as in pigments, or deeply colored substances, a slight characteristic shade is perceptible in the molecule, or atom. These are all the differences so far recognised.

All simple elements, *so-called,* and all compounds, have the same ranges of sizes, nearly, as given in my first paper, *i. e.,* ranging from the 1-10,000 to the 1-60,000 of an inch in diameter, or thereabouts. It is extremely difficult to measure them exact with a stage micrometer, which I used in my mea-

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surements. Probably greater precision may be reached with the *eye-piece micrometer.*

One strong argument in favor of these minute bodies being ultimate atoms, is their ceaseless motion, after reaching a certain fineness, and not before, as a rule, and their uniform appearance, and their dark bodies, when in exact focus, and light centres when a little out of focus. Fragments of rocks, or minerals of any kind—even organic matters—just a little larger than the largest of the atoms, do not show a black disk, when in or out of focus, but instead, a light centre, as a rule, and when globular, they are mainly organic, with a nucleated centre.

The paradoxical statement that these minutest objects in nature are ultimate atoms, will no doubt be at first received, by scientific men, with doubt and uncertainty, coming, as it does, from so obscure a source; nevertheless, I make the statement without fear of ultimate contradiction from that quarter, as I shall look there for a final ratification of the facts set forth in these pages.

We will find farther, that these atoms are themselves, by their own motions, when disturbed by heat force, the cause of the different colors of the solar spectrum, the atoms themselves corresponding very nearly in size to the different waves of the spectrum, as ascertained by Tyndall and others. This correspondence is not likely to be merely an accidental coincidence.

The lengths of the waves, as given by Mr. Tyndall, in his *Fragments of Science,* make them come within a compass of from 1-10,000 to 1-40,000 of an inch in length, and I make the sizes of atoms range from 1-10,000 to 1-60,000 of an inch diameter, showing that we are very near together. The velocity, or flicker, of each wave, he makes enormously rapid, which we may conceive to be the rapidity of the atomic motion on themselves, when intensely disturbed, to the degree of giving out different colors of direct light, or shining.

All reflected colors from the sky, landscape painting, and all other sources of spectral reflection, may be directly connected

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with the different sized atoms, reflecting the light of luminous bodies, as the sun, and other heated bodies.

We may now reasonably conclude that the universe is made up of these minute forms or molecules, aggregated into suns or planets, producing all the phenomena witnessed everywhere, by action and reäction of these things, with some invisible something we call force that causes disturbances amongst these molecules, by always seeking an equilibrium. These actions and reäctions are called correlations of force and matter. Independent of any outside disturbing agency recognizable, these atoms, when seen swimming in any fluid, have an independent motion, very distinct and unmistakable. The motion I have concluded to be magnetic polarity, from their vibratory behaviour, as a constant motion, and other motions not so readily defined or explained—sometimes a saltatory and others a wandering motion.

These objects do not seem to be attracted by one another, though sometimes repelled apart suddenly when in apparent actual contact.

They actually appear to touch each other, as much so as any other objects ever do, seen by the naked eye, though, like other globes, there are necessarily interspaces among them, no matter how close they may be compressed; hence, any mass of matter is, so far as solidity is concerned, more or less porous, and can only be filled by some invisible agent, called force. Nothing of the kind is visible in their isolated, or naked condition. When they are in a solid body, the spaces may be occupied by static force, which becomes dynamic by chemical combinations and decompositions, capable of developing "*vis viva*," or working power. All bodies, before chemically combining with one another, possess potential force, which is converted into dynamic chemical combinations, and clashing among the molecules, which is a mode of motion.

Why one set of molecules should manifest a preference for a certain other set of molecules, instead of some other set, is still a matter unexplained; and why a dislike and a refusal of any two bodies to chemically embrace each other, is also yet a

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mystery, and requires extensive study under the microscope for explanations; and even then the question may still remain a mystery.

We may easily imagine the laws that govern these changes to be inherent in the molecules themselves, and that all that any outside disturbing agency can do in bringing about any such change, or intermingling, is to afford facilities for the inherent forces to have free action, and perhaps enough of the outside disturbing force may be retained, or sufficient of the force set free and retained, to fill up the crevices; or this may not be the case at all. We are still in our infancy on this subject. But with a better knowledge of matter in its ultimate condition, we may be enabled to better study and understand the relations of force and matter, or their correlations.

Kent and Laplace, in their nebulous dreams, guessed of the existence of these atoms, when they dwelt in eternal *chaos*, before any disturbing factor put the potentials into dynamic, and set the slumbering laws into ceaseless activity; after which, another state of rest may, or may never, be attained, either in universal consolidation, or a return again to universal nebula. Who shall predict?

The Size of Atoms.—Sir John Thomson contributes a very important paper on the "Size of Atoms to Nature," and thus sums up:

"The four lines of argument which I have now indicated, lead all to substantially the same estimate of the dimensions of molecules.

"Jointly they establish, with what we cannot but regard as a very big degree of probability, the conclusion that, in any ordinary liquid, transparent solid, or seemingly opaque solid, the mean distance between the centres of contiguous molecules is less than the hundred millionth and greater than the two thousand millionth of a centimetre.

"To form some conception of the degree of coarse-grainedness indicated by this conclusion, imagine a rain-drop on a globe of glass as large as a pea, to be magnified to the size of

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the earth, each constituent molecule to be magnified in the same proportion. The magnified structure would be coarser grained than a heap of small shot, but probably coarser grained than a heap of cricket balls."

For me to take issue with such eminently high authority, would seem rather ridiculous, to say the least of it. If my recent discoveries have any foundation in fact, there certainly is a very considerable difference in our conclusions.

One great obstacle in the way to discovery of final atoms, seems to me to be the tendency to go down so low that nothing could be found, even in imagination—a tendency to go below nothingness, or to absurd extremes, when my conclusions, based on actual facts discovered, make the atoms small enough for all practical purposes. Finality, in my estimation of molecules, has been reached, and come within practical limits.

I find just the same life-like activity in all the following, when reduced to an impalpable dust, and made to float in any suitable liquid, as water, glycerine, chloroform, ether, alcohol, vinegar, and other liquids: Gold-dust, platina, silver, copper, steel, tin, and many other metals, their opides and their salts, examined all the same. The only difficulty is, in some specimens, to get them to float freely, and not come in contact with the glasses. Some kinds of atoms do not readily become moistened with water, and must be examined in some other fluid. I find one uniform result everywhere.

All gases, vapors, and liquids of every kind, I am fully convinced, are composed of solid atoms, each gaseous substance, either simple or compound, having its solid atoms surrounded with vapory matter; this vapory matter being latent force, or caloric, which determines their form, as vapor, or liquid.

All kinds of simple bodies have their solid atoms, of a peculiar matter, which, in one case, is gold matter, in another iron, silver, copper, lead, platina, mercury, oxygen, hydrogen, chlorine, nitrogen, carbon, and so on, through the list. Their respective affinities, for determining their forms, as liquid,

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vapor, or solid: Powdered granite, glass, sand, hard brick, coke, stone coal, charcoal, bismuth, black lead, rotten-stone, amalgam, of silver, gold, or tin, lamp-black, cast-iron, sulphur, carbonate of iron, gamboge, chloride of silver, oxide of red lead, lithrage, arsenuretted hydrogen, burned and sublimed sediment Mississippi river, iron rust, hydrate lime, finger nails burnt, burnt scabs of sores, and unburnt, all made up of these small atoms, as before described.

Coral, crome green, and other pigments, just the same.

Also, Ethiops mineral, asphaltum, ebony, mahogany, palm, lignumvitæ, and other wood specimens, all just the same.

Haan-dust, carmine, chalybeate water sediment, bones and pitch of Egyptian mummy, 3000 years old, asbestos, various soils, snuff, galena, alabaster, phosphate of iron, cantharides, animal charcoal, sugar of lead, lignite, Prussian blue, arsenic, arsenous acid, cobalt, sulphate of zinc, viridium, all the same thing, only shades and specific gravity differ.

Tincture of guaiac, in a drop of water, gave one of the finest specimens seen. This milky precipitate is completely made up of these forms, that bask in all their glory.

Prof. L. H. Huxley, writing on "The Physical Basis of Life," says: "I have translated the term *Protoplasm*, which is the scientific name of the substance of which I am about to speak, by the words, '*the physical basis of life.*'"

I need not follow Mr. Huxley through this most interesting startling paper, but only notice a few points of interest to my discoveries. He says: "Again, to think of the microscopic fungus—a mere finitesimal ovoid particle, which finds space and duration enough to multiply into countless millions in the body of a living fly."

In the above statement, I think I recognize these same ultimate molecules, which I shall call, for want of a more significant term, "*vibratoria*," which the writer no doubt means particles of organised protoplasm, his "basis of life."

Speaking of the whole, he says: "And contrast him with the invisible molecules—mere gelatinous specks, multitudes of

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which could, in fact, dance upon the point of a needle with the same ease as the angels of the schoolmen could in imagination."

Here, again, he no doubt has reference to these ultimate atoms, which he conceives to be gelatinous specks.

Speaking of currents in the vibrated hair of a nettle, he says: "And sometimes trains of granules may be seen coursing swiftly in opposite directions, within the twenty thousandth of an inch of one another. * * * The cause of these currents seems to lie in the contractions of the protoplasm, which bounds the channels in which they flow, but which are so minute that the best microscopes show only their effects, and not themselves."

The difficulty in seeing these minute granules consists in the inability to see them when in such rapid motion; but view them in a fluid that is stationary, and they are readily seen. The juices of all plants contain them in great quantities, independent of the water, though floating in water.

Everything is made up of minute living granules, even water, gases, and all other bodies, of every kind, whether solid, liquid, or gaseous, which can only be seen and recognized in their isolated naked condition.

In cell structures, of animals and plants both, the cells are in a more static condition than in their more fluid contents, which contain innumerable naked vibratoria, or naked granules, which, in the water, in cells, are in a ceaseless dynamic condition, and are free to keep up their perpetual motion, while those that constitute the cell walls are of a more complex nature, compounded of four simple elements, at least, in chemical combination, which do not show the naked bodies, as they are obscured by their compound arrangements.

Prof. Huxley says: "And so far as the conditions of the manifestations of contractility have yet been studied, they are the same for the plant as for the animal."

Here he is undoubtedly correct.

He farther says: "And who knows what is the ultimate fate, and what the origin, of the matter of life? Is it, as

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some of the older naturalists supposed, diffused throughout the universe in molecules, which are indestructible and unchangeable in themselves?"

How these little forms, the smallest known microscopic objects, had their origin, we know absolutely nothing only the fact. We see them make their appearance everywhere; every living thing, and every inanimate thing appears to be wholly composed of them, not excepting any of the gases or liquids, which I shall attempt to demonstrate at some future time.

In changes in organic matter, called fermentation, we find them being separated, or set free, and thrown up so as to become visible under the microscope. We find their free presence necessary to start fermentation, they themselves undergoing no change, only their active disturbing presence being necessary to ozonize oxygen, to carry on the process in all putrid or corruptive fermentations, of all animal matters, both ternary and quaternary, and from their total indestructibility, these minute atoms may be supposed to be mineral in character. They dwell within all cells, and in all organic compounds, in among cells of fibres, as well as in them.

Their presence in muscular fibre, no doubt, causes muscular contractility, by receiving force from the brain through the moter nerves, causing rapid oxidation, which sustains muscular motion by generating force, which comes into the organism as food and air, when chemically combining, develop force, which is used up, or utilized, in the form of motion.

All these changes may now be regarded as molecular disturbance in and among these minute or ultimate atoms of matter, the indestructible, the unchangeable life units, undergoing various forms of combination, themselves never suffering change.

Charles Darwin, in his doctrine of Pangenesis, has, beyond doubt in my mind, struck the key-note to organic life, though he has not enlightened us precisely in relation to the mode in which these minute granules make their way into the ovum, so that the delegates from each region shall represent their own constituency, in the origin and formation of a new offspring.

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These granules—*denticolæ, vibrionæ, lactoria, protocmus, microzymes*, or any other name by which they may be called—are no doubt the same minute monads I have been describing in my researches.

Mr. Darwin did not say they could be found in the semen, (as well as in the ovum), which I stated in my previous paper, were to be found there in great numbers.

Mr. Lowne and Mr. Beale rather favor the doctrine of Pangenesis. Mr. Beale thought the granules might readily pass through the solid tissues, if *leucocytes* could pass through the swine bladder of a fish (in Mr. Conheim's experiments), on blood corpuscles.

Admitting the doctrine of Pangenesis to be true, I can see no necessity for the granules to make their way from every part of the organism to the ————, as the granules are of the same constituents in every part of the body, as carbon, hydrogen, oxygen, and nitrogen, besides other elements of less moment, such as lime, phosphorus, sulphur, potash, chlorine, soda, iron, and some other. The last named being more mineral than the first four, are not necessarily much less important, in the economy, than the more organic constituents; all play their respective parts in the miracle of creation, and cannot, with impunity, well be dispensed with; admitting even that a large proportion of the mineral atoms perform no other function than to float in the fluids, without furnishing dynamic force, by chemically combining with something. Their own incessant motions cause disturbance, that forces oxydation and other chemical changes, producing dynamical force, or working power.

After oxygen and carbon chemically combine, in the organism, which means, that *their atoms are brought nearer together*, their respective atoms are no longer factors of disturbance, as before; uniting, their work is done, and are what Mr. Tyndall calls dead matter, though erroneously so, I think. Though dead to the system, as their atoms even, are not in a condition to produce disturbance, not being isolated or naked, as they are in the gaseous condition, with affinities satisfied.

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This union with condensation, by rushing together and clashing of molecules, developed heat and magnetism, which means motion among molecules, or *vis virea.* This chemical change is going on everywhere in the system, where carbon and oxygen meet, also any unoxidised hydrogen.

Malaria, contagion, infection, fermentation, and all other chemical phenomena; health, disease, longevity, old age, and death, all may (under the new light before us), be better understood.

The following are a few more very recent researches:

Put a drop of common black writing ink on the glass, with a drop of water, and look down. There will not be many atoms visible distinctly, but a dense nebulæ, in a state of great activity, like so many white cups on the ocean.

Now uncover the glass, and add a drop of ammonia, to decompose the ink, then look again, and it will be seen crowded with myriads of the same atoms, in a state of intense activity. Purple inks gave the same results; so did blue ink, only the latter is rather more difficult to decompose with ammonia. Several trials may be necessary before success attends.

All other inks will give precisely the same results, rightly manipulated.

All tinctures, the adding of water to which produces precipitates, gives the molecules in the greatest perfection. Tinctures such as laudanum and digitalis, give the nebulous cloud in a state of great activity, and many naked ones are to be seen. Assafœtida, guaiacum, mastic, and some other tinctures of that class, make the finest specimens of any. Tincture of mastic in water (which Mr. Tyndall, Mr. Huxley, and Mr. Brüke, the celebrated microscopist,) all declared to be as free from all forms as pure distilled water, I find perfectly dense with the same atomic forms as all other specimens. Their trouble was, that they used too high powers in their observations; they could not see them at all; they were looking after something too small, something that, in all probability, has no existence anywhere.

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Tincture of iodine in water, carbolic acid, common salt, all show them in myriads; the iodine being more difficult to manipulate than some others, owing to its great sensitiveness.

Nitrate of strontia and baryta, amber, essential oils in alcohol, with water, all give them in great perfection.

Eye-water, made of sulph. zinc and sugar of lead, give them in dim outline, like nebulæ, intensely thick, but not entirely naked—an inexperienced observer would see nothing. In this specimen there are molecules of lead, oxygen, zinc, carbon, hydrogen, sulphur, all in some form of chemical entrace, still all the molecules have one uniform aspect; one kind cannot be distinguished from any other.

Sulphate of iron, selonium, sweet and coal oil (from razorhone), with ammonia, give them very active; in the latter, many oil globules, very small and very active, as they are made up of the atoms, which all impart their own activity.

Powdered borax and water show them intensely.

Boiled coffee is full, besides numbers of active globules of larger sizes than the atoms; but they do not have that black aspect, when in focus, as the atoms do, which is our guide between the simple naked atoms and organic bodies, or globular groups of them, called sometimes cells, and, in some cases, germs.

Brown sugar, tree sugar, old vaccine matter, all full—the latter, with ammonia added, intensely active.

Asphaltum in turpentine, and alcohol added, perfectly full.

Saline water at first does not give them, but on looking a few minutes, nebulous clouds are distinctly seen in incessant motion, and many atoms become isolated; water added, facilitates the view; there are atoms of various essential oils dissolved in alcohol.

Strychnine, finely powdered, gave just the same; acetic acid and alcohol added bring them out better.

Lime water, and carbonate of the same, by breathing through a tube into it, gives them in quantities.

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MEDICAL TOPOGRAPHY OF EAST TENNESSEE.

BY F. K. BAILEY, M. D., OF KNOXVILLE.

Read before the Tennessee Medical Society, April, 1873.

THE subject of Medical Topography has never, in this country at least, received the attention of the profession that should have been devoted to it.

The area of the earth's surface comprised within the limits of the United States and Territories, embraces a great variety of climate and diversity of soil. We have lofty mountains and broad valleys. The waters which collect on the mountains and hills, having coursed their long way down the declivities, form immense rivers, which flow, in their majesty and strength, into two oceans and the Gulf of Mexico.

In nearly every remote part of all this extent of country, man, in pursuit of a home, and the acquisition of wealth, has directed his steps. There are large cities, and smaller municipalities, to be found in every direction. Regardless of the laws of hygiene, we find our fellow creatures collected together, in every character of location, where business can be done, trade prosecuted, or money made.

Without stopping to criticise the reasons for building a village or city in an unhealthy locality, we, as medical observers, are merely called upon to watch the operation of causes, and trace the effects which result. Wherever a few families reside, thither the physician will course his way, and no community can be found without more or less of medical men. In view of the above, then, we can appreciate the value of well recorded observations of topographical facts, made on the different parts of our vast domain.

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The human organism is, *ab origine*, frail, and tending to decay and death. Aside from general causes, which commence at conception and end in the gradual going out of the lamp of life, at four score, there are almost innumerable contingencies to which man is liable, between those stages above mentioned.

Prominent among modifying causes which tend to the grave, are those which arise from locality. We all know how important to life are pure air and water; it is well known that the purity of these two elements is affected by the character of the soil in which water percolates, and over which air floats.

In the literature of our favorite science, we find much written upon the subject now under consideration. The late Dr. Daniel Drake undertook, and accomplished, a great work, in his famous treatise, viz., the "Historical, Etiological, and Practical Treatise, on the Principal Diseases of the Interior Valley of North America," &c.

The American Medical Association, at an early stage of its history and transactions, appointed committees in the different States to report on Medical Topography, and thus we have an aggregate of matter which is both interesting and useful.

Without further preliminaries, your Committee will proceed to give some facts concerning the medical topography of that portion of the great State in which we live, known as East Tennessee.

From time to time there have been published some reports descriptive of localities and local prevalence of disease; and free use will be made, in this paper, of material thus furnished.

The State of Tennessee lies between about the thirty-fifth and thirty-seventh degrees of North latitude. In extent, it stretches from the Mississippi River, on the West, to the great Unaka range of mountains on the East. East Tennessee is that portion of the State which lies between the Cumberland Mountains and the Eastern limits of the State.

Quoting from Safford, in his *Geology of Tennessee*, are presented the following statements:

"Leaving the mountains, we now descend to a great area,

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or valley, fluted with scores of smaller valleys and ridges. Such are the relations of this area to the mountains on both sides, that it is well called, collectively, the valley. It is one of the most beautiful and populous portions of the State. Within it is embraced nearly all the agricultural wealth which is usually accredited to the civil division we call East Tennessee."

"This valley, in reality, is but a part of a long, great, and complex trough, that extends, at least, from the Susquehanna, in Pennsylvania, to the Coosa and Black Warrior Rivers, in Alabama; and it is thus, too, I may add here, a portion of a great natural highway; for such is this trough, that Providence has opened between the North and the South, and which now is rapidly becoming available by iron tracks throughout its entire length."

* * * * *

THE RIDGES.

"The Valley of East Tennessee constitutes the largest and most interesting portion of that part of the Appalachian region which lies within Tennessee. It has the Appalachian characteristics well developed. It is closely furrowed with parallel valleys and ridges, all tending to the Northeast and Southwest. Owing to this character, the surface, in a transverse direction—that is to say, from the Southeast to the Northwest—is remarkably rolling. 'Across the country' is here significant. The luckless traveler, whose route lies 'across,' unless happily favored with breaks and gaps in the ridges, prepares for 'wave on wave succeeding.' On the other hand, 'up' or 'down' the country, to the Northeast or Southwest, is equally significant of good level roads."

Some of these elevations, or ridges, are so high as to be denominated mountains, the names of which our space will not allow to be given. They seem to be corrugations of the surface embraced within the territory between the limits on the East and West.

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The river system of this region is thus alluded to by Prof. Safford:

"The Valley of East Tennessee has an admirable system of rivers and water courses. Its rivers are, for the most part, wide and shallow, and consequently but moderately navigable; yet their waters are clean and beautiful, their smaller tributaries exceedingly numerous, and arranged with remarkable regularity. Crystal rills, flowing from thousands of bold springs, irrigate the land everywhere, and, with the larger mill-streams and the rivers, form a net-work of water courses which, for completeness and elegance, is, perhaps, not excelled."

The principal rivers are the Holston and French Broad. The former rises in Virginia, and the latter in North Carolina. Both unite a few miles above Knoxville, and flow together under the name of Holston, till arriving at the mouth of the Little Tennessee, where the Tennessee proper commences.

The smaller streams, or "creeks," have, generally, great uniformity in direction. Nearly every valley has its creek running parallel to the ridges.

The elevation above the level of the sea is various. At Bristol, on the Northeast, it is said to be 1,678 feet; at Jonesborough, thirty miles down, it is 1,734 feet; Greenville, twenty-five miles farther, 1,581; Knoxville, at the depot, 898; Chattanooga, 675.

Perhaps no section of our country presents more variety of scenery, both in beauty and grandeur. In one locality we can behold a wide extent of country, stretching for miles; whereas, by descending a few miles to the valley, we seem hemmed in on each side, and the view is extremely limited.

It will be seen, then, that in a region so diversified in every respect, there will be variety in regard to the character of disease which prevails. In the elevated regions are found pneumonia, rheumatism, and other simple inflammatory affections incident to hilly and mountainous districts in other parts of the country.

Upon the lands lying on the borders of the larger streams,

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intermittents, remittents, and other febrile affections, are found to prevail, but to a limited extent.

Your Committee will beg leave to state, in this connection, that, being a comparative stranger in this region, and, during a residence of four years, finding a comparative freedom from prevailing disease of any character, it will be impossible to make an extended report from personal observation, and must depend upon material drawn from previously published histories, and from conversation with medical men and intelligent laymen.

"Late in December, 1768, and early in 1769," says Ramsay, in his *Annals*, "was found the nucleus of the first permanent establishment of the white race in Tennessee. It was merely an enlargement of the Virginia settlement near it." The settlers were principally from an adjoining county in North Carolina.

Capt. Wm. Bean, from Pittsylvania County, Virginia, ventured Westward farther than any, and settled, early in 1769, on Boon's Creek, a tributary of Wautaga. His son, Russell Bean, was the first white child born in what is now called East Tennessee. Capt. Bean had been a companion of Boon, and settled near the camp of that intrepid character. The same year Boon entered the now State of Kentucky, being, as it is said, the first white man who set foot on its soil.

Thus it will be seen that we have a region, settled a century ago, of which to write at this time.

Of its early medical history we have but little knowledge. Its first settlers were doubtless young or middle aged adventurers, hardy and temperate. Their habits of life were necessarily simple, and hence, in a new and hilly region, no disease would be apt to visit them. There was but little floating in the air, or mixed with the water, to act as *materies morbi.* With pure air and water, they could but enjoy good health.

But it is said that on the bottoms of the French Broad, Holston, and Tennessee, miasmatic diseases began to prevail as soon as the land was cleared of timber. It was natural that, for the first generation, most of the tillage should have

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been on the up-lands, where the timber was lightest and the scenery more inviting. We hear of no prevalence of chills until the river bottoms were cleared. The oldest settlers state that, along the rivers, the sickness became, in some seasons, extensive and fearful. After the low-lands became well cultivated, less sickness occurred, and at present there is comparatively little, where it was once so prevalent.

In the January and March numbers of the *Southern Journal of the Medical and Physical Sciences*, is an article, by B. Frazier, M. D., on congestive fever. Dr. F. practiced some eighteen years in Hamilton County, where, as he says, he had ample opportunity for observing the action of malaria upon the human constitution. The date of his observations is not stated, but probably between the years 1830 and 1850.

The same writer, in the *Journal* for April, 1857, gives an account of an epidemic dysentery, as it prevailed in the Sequatchie Valley in 1856. He states that it assumed quite an aggravated form, many cases proving fatal in four or five days from the commencement. There were, as he says, in all, about sixty deaths, in a population of, perhaps, not over two thousand. Its ravages were confined to a comparatively small locality, commencing about two miles below the village of Pikeville, and extending some ten or fifteen miles down the valley. The writer states farther, that the disease assumed a typhoid character at an early stage, and that depression required attention from the first. He gives a description of symptoms, and discusses, somewhat at length, some pathological and remedial questions which cannot find a place in this report. The Sequatchie Valley, it may not be amiss to state in this connection, is a remarkable depression, or trough, sunk lengthwise in the body of the Cumberland table-land, and extending about sixty miles in a Southwesterly course, through three counties. The valley is not more than five miles wide, and through it runs the river of the same name.

A remark may be made here, which will apply to East Tennessee, as well as to all elevated and hilly regions; it is, that

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fevers can never prevail to any extent where alluvial formation is not found.

It is very noticeable that the soil on the hill-sides is mixed with debris of rock, which has been conveyed but a short distance, and, consequently, not rounded and smooth. In other words, there is little or no gravel to be found.

The soil along the streams is not deep, and has but little vegetable mold; not enough decaying vegetable matter exists to render the air poisonous, as we find it in level districts of country. The only source of febrile disease to be met with in hilly and mountainous districts, is in accumulations of animal matter, or in bodies of water caused by overflow from mill-dams, or eddies formed by excavations in the banks of rivers from different causes. As an instance to illustrate this, will be presented some facts in connection with an epidemic disease which visited Knoxville in 1838.

I am indebted for the material from which I compile the following, to an article from the pen of Dr. Frank A. Ramsay, published in the *East Tennessee Record* for January, 1853. As it is the most detailed history of any local visitation of disease which can be found, as occurring in this region, I will be permitted to quote fully from the original account.

After some preliminary remarks, Dr. Ramsay commences with a topographical sketch:

"Knoxville is situated on the Holston River, in Knox County. From East to West it is spread over a portion of two hills, a third commencing just at the Western termination of the town. The East and West hills are separated from the middle hill, on which is located the principal portion of the town, by two creeks. Directly north of the town was a large fresh-water pond, supplied by a spring, containing fish, and filled with a kind of flag, which gave to the body of water the name of *Flag-pond;* while the river forms the Southern boundary of the town. On the creek running through the East side of the town there were three mill-ponds within the space of half a mile. The upper, known as the White mill-pond, extended North and Northeast for more than a mile.

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On the creek at the Western termination of the town, known as *Second Creek*, there were two large mill-ponds.

"Thus it will be observed the town was almost surrounded with water, which was, for the most part, stagnant, and filled with decaying vegetable matter, during the remarkably dry summer of 1838.

"The creeks have considerable fall, and ordinarily run with rapidity, and the river is generally navigable for small-class steamboats for at least ten months of the year. But during the summer of 1838, so very little rain fell, that the creeks scarcely ran—collected in puddles between the dams, and the water in the ponds was stagnant, and filled with aquatic plants, animalculæ, and debris from the saw and grist mills, and tan-yards, exhaling, especially towards evening, a disagreeable odor; while the river bed was almost dry, and contained an unusual quantity of long moss, which lay on the surface of the water, exposed to the full rays of the sun, and which emitted, when disturbed, as it frequently was, by hogs, in search of muscles, a fœtid smell.

"At the northern margin of the town is a grave-yard, which has been used for more than thirty years, and is consequently very full. Over this, at night time, phosphorescent appearances were observed, clearly indicative of a noisome influence emanating from that location and its circumstances.

"About the year 1834, intermittent fever was noticed as being much more common than it had been—our oldest inhabitants not remembering it to have occurred for very many years previous, to an extent worthy of being remarked.

"From 1834, this affection continued to prevail, acquiring an intensity and persistency with its continual presence, with occasional cases of remittent fever, some of which were almost intractable, and some fatal, until the spring preceding the epidemic, when few, if any, cases of intermittent fever were observed.

"The epidemical sickness began in June, 1838, in an increase of the number of sufferers, and of the severity of bowel complaint in children. When the sickness became more pre-

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valent, and exhibited more decided characteristics, bowel complaint seemed to disappear, or to merge in the sickness. It soon appeared in all parts of the town, no quarter being exempt, and increasing fearfully in the number of its victims, until it reached its acme in August, which it sustained until towards the close of September, when it commenced its declension, and finally disappeared coincidently with the advent of cold, changeable weather, which occurred during the latter part of October.

"Few persons wholly escaped the influence of the epidemical cause, during its prevalence. Their color was bad, tongue more or less coated, and experiencing great physical languor; under these circumstances, the least irregularity in diet or habit insured to them an attack.

"In many cases the attack was induced by indulging in the use of fruit. Indeed, some thought the peaches of that season possessed a poisonous quality; but it is evident that the essential cause was the weakness or irritability of the stomach and digestive organs, rather than any unusual qualities of the peaches.

"When the sickness became prevalent, many left town, and removed to the country, yet but few profited by the change. The fatigue, trouble, anxiety of moving, together with the fear of the disease, occasioned many to sicken; and the wants of the comforts of home, and the absence of prompt and proper medical aid, rendered their condition worse than if they had remained in town. This fact was felt so severely, by the most of those who had removed, that they hastened to return to their own homes, from the pure country air, to the close and contaminated atmosphere from which they had fled.

"The topographical sketch which has been given of Knoxville, very strongly sustains the doctrine of malaria, evolved from stagnant water and decaying matter, originating disease. What marsh miasm, or malaria, is, I believe is not known; we speak of it from its effects, without any knowledge of what it is in itself. That heat and moisture, in due proportions, and acting on decaying organic matter, produces, or evolves, a

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something, or an influence, injurious, and productive of disease, was known in olden times, and modern science has made no new revelations respecting the essential character of this productive cause of sickness.

* * * * *

"The most common form of fever which the epidemical sickness assumed, was the *continued*, though even this form, in many cases, had an intensity of manifestation towards evening, which it did not wear during the mornings. Indeed, it not unfrequently assumed something of the remittent element, being most severe on alternate days, constituting the Tentian of the old masters of physic; but generally it preserved its own characteristics throughout an attack—*a gradual increase of the intensity of fever* from the commencement.

"There were cases of intermittent and remittent, and, very rarely, of congestive fever. The sickness began with but little chilliness, and but slight rigors, and the sensations were confined, for the most part, to the spine. A more considerable chill was generally followed by a remittent, while a distinctly formed rigor, of some duration, ushered in an intermittent.

"Although, in the remittent form, for a few revolutions, the fever was continuous, the preceding paroxysm not disappearing until the accession of the next, it was distinguishable from the essential continuous form, itself gradually augmenting in intensity, by the new accession, or every succeeding paroxysm being marked more or less distinctly by a chilliness.

"The skin was more or less sallow, hot and dry, and seldom inclined to moisture, until towards the disappearance of the disease. There was severe headache, and, in some cases, approaching to phrenitis, in others to apoplexy. The intensity of the morbific influence was such, that in persons of a phthisical tendency, the latency was destroyed, and consumption of the lungs rapidly developed."

Space will not permit a farther verbatim extract from Dr. Ramsay's paper, and it will suffice to state that convalescence was slow, and that in many cases organic disease of the abdo-

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minal viscera followed, either to protract the illness or cause death. "Many had black vomit, and hemorrhage from the bowels occasionally occurred, and sometimes from the nose and mouth; and very commonly the body, after death, assumed a lemon, yellow color. Had these cases occurred on the Southern seaboard, at Charleston or New Orleans, they would have been, without doubt, considered as cases of yellow fever."

The treatment adopted in this endemic, as it may properly be denominated, was upon general principles, the object being to meet the indications in each individual case. In the remittent and intermittent variety, quinine was administered very freely, and a general tonic and supporting course pursued during the convalescent stage.

It is stated that, in a population little exceeding two thousand, more than one hundred deaths occurred. Many perished solely from want of proper professional attention, and the absence of the necessary care of a good nurse.

The visitation of the disease above described was remarkable, as occurring in a locality so favorable to health, and it is to be attributed to the dryness and heat of the season, and the abundance of local miasm emating from the ponds and low places described. As a matter of subsequent history, we will here state that, through the courts, those mill-dams were decided to be nuisances, and, being removed in a year or two, no further trouble ensued.

The history above related is quoted nearly in full, as it is interesting, both locally and in a general sense. Visitations of disease of a febrile character are not common in a naturally healthy region of country, and the facts deduced in connection with this, show that the atmosphere may be intensely poisoned under certain circumstances.

In the *Southern Journal of Medical and Physical Sciences*, for May, 1857, is a report on Epidemic Rubeola, as it prevailed in McMinn County, in 1856. The paper was read before the East Tennessee Medical Society, in April, 1857, by Dr. J. A. Long. He says—

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"The year 1856 was somewhat remarkable for its freedom from any epidemic of a *grave* or dangerous character. In fact, there were fewer diseases, of any kind of a *grave* form, than we have witnessed for many years past; and a greater tendency to periodicity than what is usual in this locality. Diseases of a low grade were less common, and a greater tendency to an *inflammatory type* or *form* of disease, than there has been since 1844. The only prevalent disease the past season was measles. The disease was brought in by way of the East Tennessee and Georgia Railroad, and quickly spread throughout the country. The disease attacked all ages, but was less severe among children. The principal delays in the appearance of the characteristic eruption were a result of debility. In the athletic robust subjects, internal congestions occurred."

In concluding the paper, Dr. Long remarks—

"But by far the most interesting and dangerous feature of the epidemic was its complications and sequelæ, consisting mainly of congestions and inflammations of the various organs. They were bronchitis, pneumonia, diarrhœa, dysentery, gastritis, gastro-enteritis, ophthalmia, dropsy, cancrum oris, &c. A few cases terminated in consumption, and one case of extensive hepatization of the right lung."

In the same number of the *Journal* is a paper read at the same meeting, by Isaac Taylor, M. D., of Maryville, upon the Epidemics of Blount County in 1856. He says—

"The lands of the county are generally rolling, streams rapid, few ponds of any kind, and little or no stagnant water. *Dysentery* or *flux* prevailed after July, the weather being very dry, and assumed a low typhoid type."

The disease was characterized by all the leading symptoms found in its various stages, and intensely manifested. He mentions strangary, with scanty and very highly colored urine, and that in cases of great debility there were dusky or leaden spots to be seen upon the chest or abdomen. Speaking of scarlatina, the Doctor says—

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"It made its appearance in the winter of 1853–4. It prevailed most severely in cold weather, and disappeared on the approach of spring."

It occurred again in 1856, and Dr. Taylor says he treated, from the 11th of December, 1856, to the 6th of January following, fifty-four cases, in sixteen families, and within an area of not over three miles in extent. A number of cases in the same bounds he did not prescribe for. He speaks of typhoid fever as prevailing every season, but gives no details.

In the transactions of the same meeting, James H. Sawyer, M. D., read a report of an epidemic neuralgia which prevailed in Knox County, in February and March, 1857. The locality in which the disease appeared is a district lying South of Knoxville, across the Holston, and not extending more than four miles. Dr. Sawyer says—

"The neighborhood is made up of a number of hills and valleys, with meandering streams coursing their way to the Holston. Their banks are generally low, and much of the bottom land is very damp, and in some instances, marshy. It was on, or in the vicinity of those streams, that the major part of the cases occurred." * * *

"Persons attacked were from five to fifty years of age. Incipiency of the attack was marked often by cold sensations, and sometimes decided chill. Almost simultaneously acute pain was experienced in the jaw, cheek, tooth, or eye, finally locating in the head. The side of the eye soon became swollen, and of a livid hue. Sometimes pain was confined to one eye, or one side of the head. Sensibility to light. Eye not injected, and presenting a brilliant aspect. In some instances there was a discharge of water from the eyes. More or less pain or uneasiness in the back and extremities. In from two to five hours, a very high degree of arterial excitement came on; pain in the head almost intolerable; pulse from 100 to 130; skin hot and dry; considerable thirst. Unless arrested at this stage, soon delirium and very great jactitation supervened; extreme anxiety and distress was depicted in the countenance

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of the patient. Soon came on dilatation of the pupils; distortion of the features; irregular contraction of the muscles, (in one instance, trismus); coolness of surface and extremities, and very frequent and quick pulse. Secretions suppressed at this stage; bowels obstinately constipated. This period of suffering was soon succeeded by stupor; then a comatose condition, terminating in death in from ten to forty-eight hours. In one or two instances, death was preceded by profuse perspiration."

The above are given as characteristic symptoms, and four cases are given in detail, in which the symptoms were most violent. Two proved fatal.

Although Dr. Sawyer defines the disease as neuralgia, it appears conclusive, from his descriptions, that it was rather a pernicious form of remittent fever—or, perhaps, more properly, congestive. It was evidently paludal in its nature, and caused by poisoned air from the low places mentioned.

[TO BE CONTINUED IN THE NEXT NUMBER.]

SUN STROKE.

BY S. P. CRAWFORD, A. M., M. D., STOCKTON, CALIFORNIA.

I HAVE lately read an abstract of an essay by Dr. Horatio C. Wood, Jr., upon "Sun Stroke," in which he states, in substance, that it is caused by heat alone, acting on the nervous centres, and in which he gives several experiments to prove the position. No explanation is attempted, I believe, as to

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the cause of the sudden onset of *coup de soliel.* I cannot accept the statement, nor the experiments, as satisfactory.

That heat is the exciting cause I have no doubt, but that there are other causes of a primary and predisposing character, is equally true; and that without these causes first at work, there would be no sun-stroke.

In the heat of summer, attacks from sun-stroke are common at all hours of the day and night (more particularly in the day), and at very different ranges of temperature. Why is it, that, in certain localities, where the heat is at 100°, there are many cases of sun-stroke, while in other localities the heat is 110°, and even 120°, and not a single case? Why is it, again, that a large per cent. of cases are found in crowded cities, and scarcely a case in the country? From where I now write, the thermometer runs up, in the shade, in the summer months, to 110° and 115°, and in the sun to 125° and 130°, and in some localities in this valley it reaches 120° in the shade, yet you rarely hear of a case of sun-stroke. Men labor in the harvest field in all this heat with perfect impunity. And I have ridden over these plains, in the noon-day sun of 130°, where there was not so much as a shade-tree within reach of the eye, and actually suffered less from heat than I did in my "native hills," where the thermometer rarely rose to 98°.

It will be said, in answer to this, that I am fanned by the "trade winds," and breathe a pure dry atmosphere. That is exactly it. Waft this atmosphere, with its temperature, over New York, and active vitality would soon restore the withering life of that populous city, and we would hear of no more cases of sun-stroke.

The exhalations arising from the *debris* and offals of the city, its moist and stagnant atmosphere, the consumption of oxygen gas, and the production of carbonic acid, by a million pair of lungs, to say nothing of its other fires and furnaces for the production of noxious gases, is a sufficient explanation of the *primary* cause of sun-stroke, and of its confinement to cities.

The blood is not sufficiently æreated in such localities, and

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the vital energies become so depressed from this and other toxical causes, that the sudden accumulation of a few degrees of heat is sufficient to extinguish life.

Nervous stimulants, pure air and water, are the proper remedies. I regard the cases as simply asphyxia, from blood-poison, excited by heat.

TENNESSEE OPIUM.

BY BENJ. LILLARD, NASHVILLE, TENNESSEE.

CONSIDERABLE interest has been manifested, during the last few years, in the cultivation of the poppy for opium, near Nashville. A small quantity of the imported seed of the white poppy was planted by Dr. Pitts, in the spring of 1871, and the seed thus obtained used exclusively this year, with very fine success, the plant being larger and more vigorous, and the capsules from two to ten times as large as those from the imported seed.

A sample of the opium, prepared this summer, was found to possess the peculiar narcotic odor and bitter taste, and presents a smooth tenacious mass of a dark brown color. One hundred grains, when dried, yielded eighty-three of powder, and upon examination, eleven of insoluble matter, mostly clay and sand, and ten of alkaloids, equal to about nine grains of morphia.

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Proceedings of Societies.

THE AMERICAN DENTAL ASSOCIATION.

THE American Dental Association met at Niagara Falls August 6–10. There was a large attendance, and the meeting was harmonious, interesting, and edifying.

The mechanical appliances exhibited showed the rapid development going on in the profession, and demonstrate a very significant fact—their encouragement of genius and application of talent.

> "There was a man—though some did think him mad—
> The more he gave away, the more he had."

This strange paradox has been signally solved by the dental profession, who spare no time, labor, or expense, to develop all their resources. A respectable dentist has too much regard for the dignity of his calling to use an inferior instrument simply because he may happen to have it on hand, or because he can purchase it cheaper than one with which he can work to better advantage.

The reports and papers of the Association evinced great ability and profound research. The one on the Comparative Anatomy of the Degestive Organs, by Prof. J. H. McQuillan, M. D., of Philadelphia, was beautiful, profound, and clear. We have seldom heard this subject so well discussed. The Professor accompanied his report with demonstrations from *papier machè* models, dried preparations, and skeletons.

The report of Prof. Judd, of St. Louis, upon Etiology, was highly interesting.

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The subjects discussed by the Association were Dental Pathology and Surgery, Histology, Chemistry, Therapeutics, Operative Dentistry, and Education.

The *questio vexata* seemed to be whether the nerve fibres entered the dentinal tubuli.

The report on Education seemed to favor the idea of inaugurating Dental chairs in medical schools, and thus bringing dentistry in as a branch of medicine, which was claimed to be its proper *status*. One brother was not in favor of being a "tail for medicine to wag."

The meeting was presided over by Geo. H. Cushing, of Chicago.

P. G. C. Hunt, of Indianapolis, was elected President for the ensuing year.

The next meeting will be held at Put-in-Bay, on the first Tuesday in August, 1873.

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Selected.

ARMY EXPERIENCE DURING THE LATE WAR.

Surgical Cases—Exsection of two inches of Fibula, and Removal of Tendo Achillis for Gen. Ed. Johnson—Amputation of Leg of Capt. Archie Page, Ligation of Veins, Supervention of Tetanus, Recovery—Exsection of Head of Humerus for Col. Palfrey, U. S. A.

Death of Gen. Maxey Gregg, of South Carolina.

A Woman's Opinion of Stonewall Jackson.

BY PROFESSOR R. T. COLEMAN, M. D.,

Formerly Chief Surgeon of Stonewall Division, C. S. A.

SURGICAL INCIDENTS.

Gen. Ed. Johnson's Case.—On the 8th of May, 1862, at the battle of McDowell, Gen. Ed. Johnson was wounded, the ball passing through the tendo Achillis, an inch above the level of the malleolus, leaving a mere shred of the tendon on either side, then ranged obliquely upwards and outwards, carrying away about half an inch of the fibula, about two inches above the malleolus, and splitting the upper fragment for an inch and a half.

Ten days after the injury, at the request of Gen. Johnson, I was, by an order of Gen. T. J. Jackson, detached from my division, in order to take charge of him. I received the order at Winchester, and reached Staunton two days thereafter. I found Gen. Johnson a great sufferer. Violent inflammation of a phlegmonous character had ensued a day or two after the

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reception of the wound, destroying all the cellular tissue on the calf of the leg, so that a long probe could be passed under the purplish integument of this region, and almost to the flexure of the knee. The discharge, ichorous and shreddy, was very copious. By the sloughing of the tissue around the wound of entrance, the tendo Achillis was exposed and softened, and the slight external and internal bands that had been left by the bullet, had given way, so that the tendon was now entirely severed. The pulse was 140, the General intensely nervous, the skin bathed in perspiration—indeed, the ordinary symptoms of irritative fever.

Quinine and opium (two grains of the former and half of a grain of the latter) were given every three or four hours, to diminish constitutional irritation. This object having been partially accomplished in a couple of days, with the assistance of my talented friend, Dr. Hay, the Surgeon in charge of the Staunton Hospital, having first placed the patient under chloroform, I made a straight incision through the integuments covering the calf of the leg, from the wound over the tendo Achillis to within a couple of inches of the popliteal region, so as to expose the entire pocket which served to retain the discharge and the broken down cellular tissue, and then applied a strong solution of crystalized nitrate of silver, so as to modify the diseased action. An inch and a half of the lower portion of the upper fragment of the fibula, split and denuded of periosteum, was now removed. The softened tendo Achillis, which now only acted as a foreign body, and kept up irritation, was cut away with scissors. The wound upon the calf was dressed with a solution of sulphate of zinc and laudanum, and otherwise the limb was placed upon a double inclined plane, and treated as for compound fracture.

The question was asked by many surgeons then, and, I suppose, will be asked by some now—Why was not the leg amputated? What could be expected of a leg with the tendo Achillis gone, and two inches of the fibula exsected? Well, I had, in the first place, great faith in Nature's conservatism; in the second place, I had a theory that an individual's efficiency

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is impaired, not simply physically, but mentally and morally, by the loss of a limb, and Gen. Johnson was too valuable a fighting man to be shorn of any of his excellencies as an officer. I therefore determined to take the chances, and if I was wrong, fortune most signally favored me.

The discharge was controlled and healthy action established by various lotions of sulph. zinc, sulph. copper, &c., but of this class there was no agent more valuable than the lotion recommended by Sir Astley Cooper—three drops of strong sulphuric acid to the ounce of rose-water. Iron and quinine, in tonic doses, juleps, milk punches, animal essences, comprised the constitutional treatment. Deficient granulations were encouraged by the lotions mentioned above, as exuberance was checked by solid nitrate of silver. The limb was moulded, and the gastronemeous, deprived of the antagonism of the tendon, was kept in *situ* by well-adjusted adhesive strips.

In six months Gen. Johnson returned to duty, and, except when in prison, he was in active service until the close of the war. Some sort of tissue supplied the place of the lost tendon; the ligamentous material that filled up the hiatus in the fibula, ultimately became ossified, and to-day (and this has been the case since a year before the close of the war) Gen. Johnson walks as well as he ever did in his life.

Captain Archie Page's Case.—On the 16th of September, 1862, Jackson's corps, having captured Harper's Ferry, recrossed the Potomac, to re-unite, near Sharpsburg, with the remainder of Lee's army, now in the presence of the enemy. The Twenty-First Virginia Regiment, in the absence of the higher officers, was commanded by the Senior Captain, Archie Page, and was deployed to skirmish in an advanced position on our extreme left. Late in the evening, Capt. Page was wounded, and, about the same time, our line of skirmishers was driven in; and as the line was not reëstablished until noon the next day, he was not recovered until that time.

When brought to the hospital, it was found that the posterior tibial artery had been cut by the ball, and coagula having

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formed in the wounds of entrance and exit, the whole limb, below the knee, had become infiltrated with blood, coagula of which filled up the cellular tissue extensively, being interposed, as was afterwards ascertained, between the layers of muscles. The limb was enormously swollen, discolored, cold, and covered with bullæ, showing that incipient mortification had supervened.

Under the circumstances, there was no alternative but to amputate the leg. Of course the limb might have been saved could the artery have been ligated immediately after the reception of the injury, but it was now too late even to get a stump of healthy tissue below the knee. He begged that I would perform the operation, though there were several surgeons in the Division much more skillful than myself. As Division Surgeon, my duties were so largely administrative that I rarely operated except when some too partial friend requested it.

There was nothing peculiar in the operation—the ordinary circular operation, the femur being sawed off just above the condyles—except that the venous hemorrhage was so excessive that one or two large veins had to be ligated. This procedure, rarely necessary under ordinary circumstances, and objectionable when it can be avoided, had frequently to be resorted to in our Division, and strange to say, within my knowledge, was productive of no bad results. This functional inutility of the valves of the veins in the lower extremities was doubtless due, in great measure, to the terrific marches that Jackson's men were called on to make, and is analogous to the varicose condition of the veins in the legs of laborers who are compelled to pass a great deal of time on their feet. Jackson, as Professor of Natural Philosophy at the Institute, had taught that momentum was weight multiplied by velocity—that a bullet of tallow, propelled by powder enough, would pass through an inch plank; as a General he practiced this principle, and hence, in part, his wonderful success against overwhelming odds.

Page, with true Presbyterian grit, had followed Jackson

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through all his weary marches, always declining a lift in an ambulance because his whole company could not ride, and he was unwilling to require anything of his men that he did not endure himself. He was exceedingly thin, and his tissue was very flabby. He bore the operation bravely, and, on recovering from the chloroform, he was in fine spirits. He thanked me warmly for the services I had rendered him—by the way, he was the only man that thought to thank me during the entire war for mutilating him. He lifted up his stump, and after taking a deliberate survey of it, he remarked, with something of sadness in his face,—soon, however, chased away by a smile—

"Well, Doctor, I must console myself as did poor Sam Garnett, whose leg you cut off last year. I saw him on last Christmas, coming from a shoemaker's with one shoe, and he said to me, 'Captain, it was the most fortunate thing for me in the world that I lost my other foot. I gave forty dollars for this one shoe, and had I both feet to clothe, I should be compelled to go barefooted.'"

A week after the operation, I saw Capt. Page in Winchester, whither he had been sent with the wounded, and found him doing well.

About four weeks after this I called at the house of a relative of his in Richmond, to inquire if he had been heard from, and an unfamiliar voice from an adjoining room bid me come in. To my surprise, I found Page. His jaws were so locked that a knife-blade could, with difficulty, have been insinuated between his teeth. Hence the change in his voice. He informed me that a day or two after I left him in Winchester, tetanus had supervened. The doctors informed him that recovery was impossible. He made up his mind not to die, and, thanks to opium and an inflexible will, he fought it through successfully. All tetanic symptoms had disappeared, except in his jaws, and the trouble here, according to my limited experience in such cases, is always more or less chronic when recovery takes place. He was free from pain, and his only concern was, that he could not insinuate even the smallest oyster

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between his teeth, and he was crazy for raw oysters. His recovery soon became perfect.

Colonel Palfrey's Case.—On the evening of the 17th of September, 1862, at the battle of Sharpsburg, while I was engaged in my duties at the field hospital of the Division, I felt my arm touched, and on turning, observed, to my surprise, a Federal colonel, escorted by a Federal medical officer. The colonel introduced himself as Colonel Palfrey, of Boston. He said: "I am wounded, and bewildered by the loss of blood and the strangeness of the country, in my efforts to go back to one of our hospitals, I found myself within your lines, and have been directed to you as the surgeon in charge of this hospital, and I crave at your hands the kindness that I would willingly extend to you under similar circumstances."

He was weak and faint from the loss of blood, and his suffering condition, in connection with his courteous and gentlemanly bearing, commended him to my warmest sympathies. He was assigned to the best quarters that I had remaining, an unoccupied corn-crib, and after reäction had been established by rest, a little whisky—our only stimulant—and a dish of hospital broth, I examined his wound, and was gratified to find that, although the head of the humerus had been severed from the shaft by a musket ball, yet the latter was not split. I assured him that his apprehension of losing his arm was groundless, that exsection could be performed, and that, in all probability, he would recover with a useful limb.

Presuming that he would prefer to be operated on by the medical officer who accompanied him, I detailed several assistant surgeons to render the necessary aid, and resumed my attention to our own wounded. On returning, in about an hour, I was shocked to find Col. Palfrey still on the operating table, and to be informed that the heart of his medical officer had failed him at the very commencement of the operation. One of my assistant surgeons then essayed the operation, and having made a straight incision, about three or four inches long—taking in the wound of entrance—from a point midway be-

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tween the acromion and corocoid processes, directly downwards, in the direction of the axis of the arm, he had succeeded in turning out the upper portion of the shaft of the humerus, and sawing off a thin section embracing the roughened end, and then desisted, leaving the head of the bone in the glenoid cavity. As speedily as practicable I removed the head of the humerus, drew the incision together with a couple of sutures, reinforced by adhesive strips, and had the elbow and forearm well supported by a bandage, so that the severed end of the shaft was brought into close approximation to the glenoid cavity. Cold water dressing was ordered.

This operation, by a *straight* incision, was repeatedly used by the surgeons of the Division, and for the following reasons: While in the exsection of the shoulder-joint, rendered necessary by disease, the surgeon is almost compelled to resort to a U T, &c., incision, in order to get room enough to disarticulate the head of the humerus, yet, in cases of fracture demanding the operation, the very mobility of the shaft of the humerus at the point of fracture will enable the surgeon, by bending the arm at an obtuse angle, readily to bring out, through the straight incision, the upper end of the fractured shaft, so as to saw it off, and after this has been accomplished, sufficient room is obtained for disarticulating and removing the head of the bone. The advantage of the operation, as thus performed, in preserving the functional utility of the limb, is obvious, as the deltoid is much less impaired; and besides, the recovery is likely to be more rapid, as the incised surfaces are less extensive.

That evening I received orders to send off such wounded as one train of ambulances could transport, and not to permit the ambulances to return, as they might obstruct the movement of the troops during the night, to the Virginia side of the Potomac. This was accomplished, and early on the following morning I called to bid Col. Palfrey good-bye, and found that he had gotten along well, and his case promised favorably. I have never seen him since, but through my colleague, Dr. McGuire, I learned that he visited Richmond soon after the

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war, and was in possession of a very valuable arm, preserved to him by the exsection.

DEATH OF GENERAL MAXEY GREGG.

On the 13th of December, 1862, at the battle of Fredericksburg, Gen. Maxey Gregg, of South Carolina, the accomplished scholar, the elegant gentleman, and the gallant soldier, received a wound, which, fracturing the spine, precluded the possibility of recovery. I was requested to receive him at my hospital, to which request I willingly acceded. He was accompanied by a physician, a warm-hearted, noble fellow, who was overwhelmed with grief at the prospect of losing his friend. By this physician I was requested to see Gen. Gregg; as I passed through the hospital I met with Dr. McGuire, the Corps Surgeon, and at our request he joined in the consultation.

Gen. Gregg shook each of us cordially by the hand, and, before waiting for us to ask any questions, said, addressing Dr. McGuire and myself: "Don't waste time, gentlemen, in ministering to an old hulk whose days are numbered, but devote yourselves to these poor fellows," (pointing to the wounded around him,) "to whom your skill will be of service." This self-abnegation is the more remarkable when it is borne in mind that nothing so largely develops the latent selfishness of human nature, or intensifies what is patent, as a wound. This was the occasion of a vast deal of injustice to medical officers in the commencement of the war.

In going around the field hospitals I would inquire of the soldiers if their wounds had been dressed, and the answer would be, almost invariably: "No, Doctor; nothing in the world has been done for me; a doctor passed his finger through my wound, put on a wet bandage, and told me to keep it wet from my canteen, and has not been here since." It was a long time before soldiers could realize that this was the only and best thing that could be done. Each man thought that a doctor, with never ceasing diligence, should devote himself to his special service. This feeling was not confined to the uneducated, but was exhibited by all classes. Hence the more strik-

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ing the unselfishness of Gen. Gregg. It deserves to rank with the noble self-sacrifice of Sir Philip Sydney, who, wounded himself, abandoned to a wounded soldier the cup of water procured with great difficulty, and for which his own parched throat so grievously longed.

About midnight, the same medical officer to whom I have alluded, and whose name I have, unfortunately, forgotten, asked me to see again, with him, Gen. Gregg. The death-damp had now gathered on the General's brow; his life was fast ebbing away. The doctor whispered to me: "Shall I tell him he is dying?" I replied that the announcement would do no harm, as I was sure, from his remark to us in the morning, that he realized his condition. Approaching Gen. Gregg, he said, in a voice broken with emotion: "General, if there be any wishes near and dear to your heart, entrust them to me, and I will religiously carry them out." Gen. Gregg took the doctor's hand in his, and gazing gratefully upon him, he answered: "Doctor, the wish that is nearest and dearest to my heart is that you may survive to see our cause triumphant." Home, friends, personal interests of all sorts—even life itself—forgotten and absorbed, in an all-pervasive devotion to the South.

This noble man, who, amid the most trying circumstances, by the sublimity of his own grand moral nature, was enabled to rise superior to ordinary human frailties and instincts, was soon consigned to a patriot's grave, and his State and his country will long mourn in vain for his peer.*

A WOMAN'S OPINION OF GEN. T. J. JACKSON.

Biographers, historians, orators, and even his enemies, have vied with each other in doing honor to "Stonewall Jackson." Embodied in song and story, his fame will doubtless go "sounding down the ages," but as yet I have neither seen nor heard a tribute to him comparable to that of a dear good old lady, Mrs. Neal, of Fredericksburg.

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* Yes, the bravest of the brave, and without fear or reproach.—*E.*

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At the battle of Fredericksburg, my hospital was at the house of Mr. Yerby, where Mrs. Neal, his connection, was staying. As soon as the wounded commenced coming in, this old lady, whose heart was as big as her body, devoted herself to ministering to their necessities; and although one would have inferred, from her size, that locomotion was not her *forte*, yet, until past midnight, she was preparing tea, coffee, broths, &c., for our wounded, and carrying these to all parts of the hospital, and never seemed to weary in her humane work.

Soon after midnight, I received orders to send to Richmond all the wounded that could bear transportation, and my Division was ordered to march for a point lower down the Rappahannock to resist an apprehended flank movement in that direction. We were all off before Mrs. Neal was up the next morning, so that I had no opportunity, at that time, of thanking her for her kindness to our poor soldiers.

Several months passed away, Chancellorsville had been fought and won, but at the enormous cost of Jackson's death, when I found myself again in the neighborhood of Mr. Yerby's, and availed myself of this opportunity to thank Mrs. Neal for her tender thoughtfulness for our soldiers. She spoke lightly of what she had done, and regretted that she had not been able to do more. She then remarked:

"Doctor, after you left us, Gen. Jackson brought his wife to stay at our house, and I saw a good deal of him. I was very much disappointed in his appearance; he did not look as I thought a great man would; and when I saw him on the floor playing with his little child, and talking baby-talk to it, I thought, *this cannot be a great man;* but when I looked away, and reflected upon what he had done, I *knew he was a great man.*

"Well, he had a way of coming in very late at night, and going out very early in the morning, and without an escort. This habit of his made me very miserable. So one evening, when he happened to come in earlier than usual, I went up to his room, and said to him: 'General Jackson, I have come to have a plain talk with you, and I hope you will not be offend-

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ed by what I am going to say, for I am old enough to be your mother. Now, General Jackson, they tell me that you have a body-guard at your head-quarters, and I would like to know what is the use of a body-guard, if not to protect your person? Still, you come here at all hours of the day and night, unattended. General, you have no right to trifle with your life and liberty in this way, for you belong to the country, and the enemy, only a few miles distant, would give their whole army to kill or capture you. Now, General, do take care of yourself, for I want you to live until our cause is triumphant; when we have succeeded, 'I don't care how soon you die,'—[Here, in telling me about it, she broke right down, and commenced weeping, and I thought what a cruelly selfish sentiment. Presently she choked back her sobs, and completed her sentence]—'for this world has no rewards commensurate with your merits.'"

Take the sentence in its entirety: "I want you to live until our cause is triumphant; when we have succeeded, I don't care how soon you die, for this world has no rewards commensurate with your merits." When we bear in mind that our grateful country confers no rewards but political honors, for which Jackson was unfitted, and for which he did not care, and then remember the inestimable value which he placed upon celestial honors, it does seem to me that dear old Mrs. Neal exhausted the power of language in pronouncing a fitting eulogy on our Christian hero.*—*Virginia Clinical Record.*

TAPPED 886 TIMES.—Cann reported to the Academy of Medicine, Paris, 1842, the case of a female with ascites fifteen years, who was tapped eight hundred and eighty-six times, and was cured. All as yet reported cases must yield to this—*Clinic.*

* Sublimity itself is exhausted in the sentiment.—*E.*

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THE YOUNG DOCTOR.

We clip the following characteristic bit of description from Oliver Wendell Holmes' story, "The Poet at the Breakfast Table," in the *Atlantic Monthly* for March, 1872:

The young doctor has a very small office and a very large sign, with a transparency at night big enough for an oyster-shop. These young doctors are particularly strong, as I understand, on what they call "diagnosis"—an excellent branch of the healing art, full of satisfaction to the curious practitioner, who likes to give the right Latin name to one's complaint; not quite so satisfactory to the patient, as it is not so very much pleasanter to be bitten by a dog with a collar round his neck, telling you that he is called *Snap* or *Teaser*, than by a dog without a collar. Sometimes, in fact, one would a little rather not know the exact name of his complaint, as if he does he is pretty sure to look it out in a medical dictionary, and then, if he reads—*This terrible disease is attended with vast suffering, and is inevitably mortal,* or any such statement, it is apt to affect him unpleasantly.

I confess to a little shakiness when I knocked at Dr. Benjamin's office door. "Come in!" exclaimed Dr. B. F., in tones that sounded ominous and sepulchral. And I went in.

I don't believe the chambers of the Inquisition ever presented a more alarming array of implements for extracting a confession, than our young doctor's office did of instruments, to make nature tell what was the matter with a poor body.

There were Ophthalmoscopes and Rhinoscopes, and Otoscopes and Laryngoscopes and Stethoscopes; and Thermometers and Spirometers and Dynamometers and Sphygmometers and Pleximeters; and Probes and Probangs, and all sorts of frightful inquisitive exploring contrivances; and scales to weigh you in, and tests and balances and pumps, and electro-

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magnets and magneto-electric machines; in short, apparatus for doing everything but turn you inside out.

Dr. Benjamin sat me down before his one window and began looking at me with such a superhuman air of sagacity, that I felt like one of those open-breasted clocks which make no secret of their inside arrangements, and almost thought he could see through me, as one sees through a shrimp or jelly-fish.

First he looked at the place inculpated, which had a sort of greenish-brown color, with his naked eyes, with much corrugation of forehead and fearful concentration of attention; then through a pocket-glass which he carried. Then he drew back a space, for a perspective view. Then he made me put out my tongue, and laid a slip of blue paper on it, which turned red and scared me a little. Next he took my wrist; but instead of counting my pulse in the old-fashioned way, he fastened a machine to it that marked all the beats on a sheet of paper—for all the world like a scale of the heights of mountains, say from Mount Tom up to Chimborazo, and then down again, and so on. In the mean time he asked me all sorts of questions about myself and my relatives, whether we had been subject to this and that malady, until I felt as if we must some of us have had more or less of them, and could not feel quite sure whether Elephantiasis and Beriberi and Progressive Locomotor Atxay did not run in the family.

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Extracts from Home and Foreign Journals.

SURGICAL.

COLLATED BY PAUL F. EVE, M. D.

THORACENTESIS.

The discussion at the French Academy, to which we have several times referred, still continues, and many interesting facts have been elicited.

M. Jules Guérin, in a very masterly summary on the discussion up to that point, and indeed of the whole subject, claimed to have introduced the subcutaneous method of operating more than thirty years ago. He has operated on this plan in fifty-two cases without any accident traceable to the procedures. The plan is to puncture the skin at some little distance from the rest of the puncture, drawing it aside, so that afterwards the perforation is completely closed by natural tissues.

M. Béhier criticised all the operations, and especially the statements of M. Chassaignac.

M. Richet reviewed the debate in its surgical aspects, and contributed valuable remarks to the subject of pleural abscess.

M. Sedillot called to mind, without entirely approving it, the teaching of Hippocrates concerning empyema, and rebuked those who sought to claim all credit for modern science, and refused to see that our present state is but the result of long continuous progress. The present and the future, he said, are alike based on the past. He considered that all were substantially agreed on the necessity of opening the thorax whenever a purulent collection was proved to be present. It was also

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necessary to empty the pleural sac, and to employ injections in order to rectify the surface when needful.

M. Barth, President, drew attention to the fact that, in 1865, the Academy had discussed thoracentesis, but that, at present, no speaker had alluded to that debate, which nevertheless elucidated many important points.

M. Richet mentioned a case of empyema in which thoracentesis was performed, but no fluid appeared. At the *post-mortem* three separate collections of pus were found enclosed by adhesions, between which the trocar had passed.

The debate, up to a certain point, had been summed up in *La France Médicale* in a leader signed by our *confrère*, Dr. Lapeyrère. He remarks that five operations were discussed. 1. Simple puncture; 2. Subcutaneous puncture, as practised by M. Jules Guérin; 3. Drainage; 4. Incision; 5. Aspiration. He considers M. Richet's clinical researches on the relative merits of these operations of great value. From them it appears false membranes frequently occur in empyema, and their presence may prevent either bistoury or trocar coming upon the pus. Moreover, free false membranes are sometimes present, and interfere with drainage. Then incision and injections are called for.

La France Médicale has also published, in full, M. Chassaignac's paper, in which the advantages of drainage are strongly insisted on. This operation, we are told, may well replace various other procedures.—*The Doctor*, Sept. 1, 1872.

ERYSIPELAS.

Professor Broca has lately recommended a fresh plan of treatment, which, according to *L'Abeille Médicale*, he has often successfully employed at the commencement of the disease. This plan is to apply a layer of collodion upon the skin above the part attacked. The layer of collodion, which is to be on sound skin, should be from six to eight centimetres wide, and forming a complete circle, separating the healthy skin from that attacked. A slight circular compression is thus produced, and it is rare for the disease to cross this barrier, behind which

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it speedily fades. The part should be examined once or twice a day, in order at once to repair any fissures, and the collodion should be quite pure, without any oil, which is sometimes added to it.—*Ibid.*

SKIN GRAFTING.

M. Olliver, of Lyons, thinks that the connective tissue, and not the epidermis, is the active agent in the grafts, and objects to sowing a number of small epidermic grafts. He cuts them from six to eight centimetres in length, and they succeed very well, but it is inconvenient to procure such large grafts. The skin is first frozen before cutting it away. This is a veritable autoplasty, and the healed surface has a more persistent vitality than ordinary cicatrices.—*Ibid.*

CHLORAL AS A LOCAL APPLICATION IN ECZEMA.

A correspondent writes to the *Boston Medical and Surgical Journal*, July 25th, that he has, during the last year, used in several cases of chronic eczema, with good results, a solution of the hydrate of chloral as a topical remedy, in the proportion of one or two drachms to a pint of water, applied two or three times a day.—*Ibid.*

POSITION IN REDUCTION OF HERNIA.

Dr. Simorre recommends (*L'Abeille Médicale*, May 27, 1872,) that in the reduction of a strangulated hernia the patient should be placed in the following position: A mattress having been doubled on itself, the patient is placed upon the inclined plane which results, in such a manner that his buttocks will rest on the most elevated part, and the front of the vertebral column, which corresponds to the epigastrium, upon the lowest part. His head and chest are supported by a bolster, and should be higher than the epigastrium, so that the muscles of the front of the neck, and of the chest and abdomen, shall be in a condition of extreme relaxation. The space at the foot of the bed, made vacant by the doubling of the mattress, should be filled up, so that the patient's feet may have a suitable sup-

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port. He says that since he has had recourse to this method, in no instance has a strangulated intestine resisted his efforts at reduction.—*Med. and Surg. Reporter.*

TRAUMATIC TETANUS CURED BY CHLORAL.

Dr. G. Lavo (*Annali di Med.*, February, and *The Lancet*, March 30,) publishes three cases. They were observed almost at the same time, at the Hospital of Brescia, and had a very favorable issue.

The first case was a man of twenty-six, who met with lacerated and contused wounds of the scalp. The lesser ones healed in a few days, and the more extensive wounds in a fortnight. At that period, difficulty of deglutition occurred, and soon the tetanic symptoms made their appearance. Chloral was first given by the mouth, and warm baths (99° to 100° Fahr.) repeated night and morning. Hypodermic injections of the same substance were soon had recourse to, and the chloral was alternated with laudanum, the warm baths being regularly and daily persevered in. On the thirteenth day the improvement was considerable, and after the application of a few leeches to the anal region, the patient was discharged in excellent condition. He had taken about eight ounces of chloral, and used twenty-five baths.

The second patient was twenty-one years old, and showed symptoms of tetanus a fortnight after a contused and lacerated wound of the foot. Woorara was first used at the patient's residence, but failed; and he was received in hospital fifty days after the infliction of the wound, and thirty-five after the first appearance of the tetanic symptoms. Ordered ninety grains of chloral and a hot bath. These means were continued for a fortnight, with an occasional enema; and the patient was discharged cured, after having taken some ferruginous cod-liver oil. He had taken altogether about six ounces of chloral and used fifteen baths.

The third patient was a man of forty-two, who met, by the falling of a stone, with a contused and lacerated wound of the foot. The tetanic symptoms appeared twenty-five days after-

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wards, and the man being removed to the hospital, the same treatment was adopted which had proved so beneficial in the first two cases. In this instance, however, hypodermic injection of seven grains of chloral was used concurrently with the internal administration of the same. In about thirteen days the improvement was manifest, and the patient, who had seen the recovery and exit of his two companions in misfortune, could be kept in hospital no longer, and furtively left the institution.—*Virginia Clinical Record.*

NEW TREATMENT OF PERSISTING INFLAMMATION.

Prof. John Marshall (*London Lancet*, August, 1872,) highly recommends the local application of the oleates of mercury and morphia in persistent inflammation, more particularly of the joints. It is made by dissolving recently prepared oxide of mercury in oleic acid and adding to each drachm of the solution one grain of morphia. He claims for it greater elegance, economy and efficiency, than is possessed by any of the mercurial unguents. Being a solution, instead of a mechanical mixture, it is more rapidly absorbed, and as a consequence, the remedial effects are manifested with greater promptitude.—*Medical Herald.*

MURDERED BY A NEEDLE.

An extremely interesting medico-legal case is reported from Limberg. The wife of the attendant at the anatomical cabinet died suddenly, and without visible sign of disease or injury. This led to a *post-mortem*, which at first revealed no cause of death. A closer examination, however, discovered an almost imperceptible red point in the region of the heart, resembling the bite of a flea. This region was of course at once examined to disclose a broken needle in the heart. The murderer, thoroughly familiar with the anatomy of the body, had doubtless sacrificed his victim during sleep. The anatomical servant was at once arrested.—*Clinic.*

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MEDICAL.

BY W. L. NICHOL, M. D.

THE COLD DOUCHE, ETC., IN SUNSTROKE.

From Hartshorne's Watson, 1872.

It was formerly the custom to bleed the patients who were suffering from sun-stroke; but this treatment was gradually acknowledged to be disastrous. The natives of India were always in the habit of pouring cold water on their heads; and the modern experience of our army surgeons has vindicated and confirmed the wisdom of that practice. They find also, that when consciousness and power to swallow have been restored, it is better to give some moderate stimulant—rum and water, for instance—than to use any form of depletion. I have been told, on good authority, that in his Indian campaigns, Sir Hugh Rose always took with him, on his marches, an ample supply of water, and that whenever he felt impending the well-known precursory symptoms of sunstroke, he caused himself to be sluiced, head and body, with gallons of the water, and soon recovered. It seems borne out by adequate testimony, that, as a rule, of those seized, they who are bled and purged die, and they who are douched escape death. At the taking of Rangoon, under extreme heat, there were numerous cases of so-called sunstroke. English officers so affected were taken to the hospital. Those who belonged to the troops of the line had been treated after the old manner, by blood-letting; they all died. Those who belonged to the Indian troops had been treated by cold affusion to the head; they all recovered. For this fact I am indebted to Dr. Christison.

The cold douche, then, is the principal remedy. Of course the patient should be divested of all tight and heating garments. Dr. Johnson recommends, if the breathing be rapid and laborious, that the body should be wrapped in a wet sheet,

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and that evaporation should be quickened by a fan, or by bellows. Iced water should be freely administered by the mouth if the patient can swallow, and injected into the rectum. "As hot air and hot blood are the cause of this form of apnœa, so cold air and cold water are the chief means of cure."

Although the brain-substance is not broken by cerebral hemorrhage, nor its fibres severed by softening, it is plain that that organ is profoundly hurt, even when the disease does not immediately kill. They who recover are scarcely ever the men they were before; they are subject to abiding headaches, lose their memory and the force of their intellect, become weak, incapable, fatuous, and sometimes even paralytic.

[It is a conviction now common to many, that, under the term "sunstroke," two different affections are included—the one, true *heat-apoplexy;* the other, rather *heat-collapse.* Both are very dangerous. The difference in treatment seems to consist mainly in the applicability of diffusible stimulants (as ammonia) to the latter, and not to the former condition. Cold is the first remedy in both. In 1868, Dr. Herbert Norris treated with success four cases, in the Pennsylvania Hospital, by the hypodermic injection of a quarter of a grain of sulphate of morphia.]—*The Clinic.*

MEANS OF ARRESTING EPISTAXIS.

Dr. Martin, of Geneva (*Journal de Méd. et de Chir. Prat.*), says that, as the blood in general, in epistaxis, comes only from one nostril, and most frequently from the anterior third of one of the nasal fossæ, he compresses the facial artery of the side upon the upper jaw, very near the nose, and thus diminishes the effusion of blood into the nasal cavity, which almost always arrests the epistaxis. He has had the pleasure of stopping very obstinate bleedings from the nostrils in the street, on steamboats, and in coaches, or in the theatre, in this way. In the schools of his Canton, some professors have recourse to it with the boys, and have found it to answer well. He adds, that in two cases this plan ceased; but in three cases plugging of the nostrils also failed. Patients were drunkards.—*Doctor.*

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OINTMENT FOR PILES.

M. F. Guym, of the Necker Hospital, Paris, prescribes, in painful hæmorrhoids, an ointment compounded of one part of extract of belladonna, two of extract of rhatamy, and fifteen of lard.—*The Doctor,* Aug. 1, 1872.

TREATMENT OF PLEURISY.

Dr. Quincke, of Berlin (*Berliner Klin. Woch.*), mentions that he had, under Dr. Frerichs, the opportunity of treating fifteen cases of effusion in pleurisy by operating. He comes to the following conclusion: In order to get rid of serous exudations, the most practicable method appears to be puncture with a fine trocar, and withdrawal of the fluid by suction. Even when nothing more than a palliative result is to be expected, puncture is often indicated. In exudations of pus, incision, and afterwards daily out-cleansing of the cavity of the pleura is indicated at once, and this should be done early, since a spontaneous absorption is unlikely to take place, and at any rate is very tedious. Even in many cases of purulent pleurisy, which turn into pneumo-thorax, operative procedures are indicated.—*Ibid.*

EMPYEMA.

Dr. Maurice Raynaud recently presented, in the Academy of Medicine a patient on whom he had operated, on the 7th of May, for empyema. This man, aged 22, had entered the Saint Antoine Hospital for a pleurisy, with which he had been attacked about twenty-five days. The first puncture gave exit to a serous liquid, of citrine color, but the chest was not long in filling again, and this necessitated a second puncture, and afterwards a third, after which there came away hardly a half spoonful of pus. Convinced that there must be false membranes, M. Raynaud operated further, and gave exit not only to two quarts of purulent liquid, but also to a quantity of false membranes as large as the fist. The patient is now quite convalescent, and only a very small fistula remains, from which

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occasionally issues a drop of pus; the lung has resumed its normal position, and the respiration is heard to the very base. This observetion shows that empyema may be very quickly cured.—*Ibid.*

HYDROCHLORATE OF AMMONIA.

Spencer Thomson, M. D., Ashton, Torquay, (*British Medical Journal*, July 13, 1872,) finds the hydrochlorate of ammonia one of the most efficient of remedies in cases of portal dropsy, prescribed in scruple or half-drachm doses, given tolerably diluted, every six or eight hours. The recent accounts of the success attending the employment of this remedy in hepatic affections in India, he hopes, will lead to its more extensive use in England.—*Medical Record.*

GOOD EFFECTS OF ACONITE IN ACUTE PNEUMONIA.

Among other cases of interest which came under the observation of Dr. Murchison, in the male wards of St. Thomas's Hospital, London, was that of a boy, aged fifteen, who was admitted with acute pleuro-pneumonia of the right side, and herpes labialis, and considerable increase of temperature. On the administration of eight minim doses of tincture of aconite, with liquor ammoniæ acetatis, every four hours, the temperature at once came down, and the disease did not increase.—*British Medical Journal*, July 13, 1872.—*Ibid.*

PREPARATION OF KOUMISS.

Dr. Townsend, of Cork, gives the following formula for the preparation of this drink, which is said to produce such favorable results in the treatment of phthisis. Take one quart of new milk, one noggin of good thick milk, or fresh buttermilk, and three or four lumps of white sugar. Mix all together from jug to jug till the sugar is quite dissolved. Put it in a warm place to stand for ten hours, by which time it will be quite thick. Pour it again from jug to jug until it is quite smooth. Bottle it in soda-water bottles, and allow it to remain in a warm place for thirty-six hours (twenty-four in summer).

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Use the best velvet corks; tie them down; shake the bottle well for five or six minutes before it is opened. It will have whey at the bottom when it is fit for use. It should be made every day, and taken in quantities. Its fermentation is the test of its excellence.—*Ibid.*

POISONING BY PHOSPHORUS—CURE BY TURPENTINE.

Dr. Vito Giuseppe, of Marco, reports (*Il Morgagni Giornale*, No. 34, 1872,) the case of a woman, aged 40, who had swallowed, fasting, with the intention of suicide, an infusion in which a package of ninety matches had been placed. The author, called two hours after ingestion of the poison, observed the following symptoms: Pain, most intense at the epigastrium; facies abdominalis, filiform pulse, respiration very frequent, etc. He administered an emetic at once, then a gramme (fifteen grains) of essence of turpentine. The symptoms soon amended, but the patient was seized with a severe diarrhœa, and passed a large quantity of urine. In two days she had recovered.

The author thinks that the turpentine acted, in this case, as a diuretic and purgative, in favoring the elimination of the phosphorus; he rejects the theory of Personne (preventive to the combustion of phosphorus).—*The Clinic.*

VACCINATION CURATIVE OF SMALL-POX.

Dr. Furley, in the *London Lancet*, asserts that he is in the habit of vaccinating every case of small-pox that comes under his care, with the effect of arresting the disease in nearly every case. The common method of operating is not efficacious, and it is necessary to inject the lymph into the circulation. For this purpose he uses "a hollow needle, with a bore sufficiently large to admit of the introduction of a vaccine tube. The process consists in passing the point of the needle charged with a tube of lymph, under the skin, and blowing the lymph directly into the blood." This is all original, no doubt, but we don't like the blowing.—*Pacific Med. and Surg. Jour.*

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CIDER AND RHEUMATISM.

It has come to light that in certain parts of England, working people, and even little boys employed to frighten birds away, are compelled to take a considerable part of their wages in cider. Common laborers are required to take three pints per day, carters and shepherds four pints, and boys one pint. Women who work out are required to take one quart daily. Aside from the moral evils of the practice, it is found that the health of the laborers is seriously affected, and that rheumatism is a frequent result; as might be expected, on the prevalent theory that that disease is caused by, or is associated with, lactic or uric acid in the blood. The subject has enlisted the attention of the House of Commons, and proceedings have been instituted for the purpose of correcting the evil.—*Ibid.*

From the "Indiana Journal of Medicine."

Hydrocele and cysts can be treated by a new method of Monod. He takes out some fluid, and injects the same quantity of alcohol. The injections, repeated every fourth day, cause no pain nor inflammation. Resorption is effected by altering the fluid.—*Bul. gen. de Therap.*

Pieces of ice in the rectum in chloroform poisoning, are said to be the best.—*Union Med.*

Vomiting and salivation remaining from intermittent fever were cured by tincture of iodine, ten drops thrice a day. Two favorable cases are reported, where quinine and arsenic had failed.—*Memorab.*

Bromide of camphor is a new remedy in delirium tremens. Three to four grammes (one drachm) in pills is the regular dose for twenty-four hours.—*Union Med.*

Hypodermic suction in buboes had good effect in abridging the disease; besides, it has all other advantages over an open wound.—*Wien. Med. Press.*

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Editorials, Reviews, Etc.

RACHEL AND HER CHILDREN.

Dr. Toner, of Washington, engaged in a great work under the auspices of the American Medical Association, shows that nearly forty per cent. of the total deaths of all ages are those of infants under five years of age. This is the average; but the death-rate of children is much higher in cities than in the country, and higher in some cities than others, and this regardless of climatic influence. Thus it is lower in New Orleans and Providence; Chicago stands highest.

We hold that babies have rights, as well as sailors and women, and first among these is the right to be born, and not to "have a knitting-needle thrust in its eye before it has any"; and the home where it grows, and moves, and has its being, has *its* rights, though few choose to respect them, and among them should stand highest, an exemption from the womb-torturers, while actively employed in the sublime occupation of man-making. Why, ragged urchins respect the setting hen, and scorn to molest her in the humble occupation of elaborating spring chickens. Let Æsculapians emulate their nobility of soul! "Woodsman, spare that tree," says the poet; womb-torturer, spare the embryo woodsman, says the philanthropist.

It is dreadful to think, when the poor little speck of hu-

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manity has successfully run the gauntlet of womb-torturers and "instrumental delivery," and can cry with the sailor—

> "Farewell, all dangers of the past,
> On *terra firma* safe at last,"

that, amid its rollicking rejoicings, a miserable old crone should pour into its virgin stomach her devil's compound of "soothing syrup," to bring upon it that sleep that knows no waking.

Babies and their womb-home are, at this day, exciting unusual attention. First, as to whether the former shall get a lodgment—get possession at all. This point is largely discussed East, but we Westerners have no stomach for it, being content to announce, in general terms, our adhesion to the rights of babies—which comprehends the great right to be begun, the proto-right, and without which all other rights were moonshine. But what use is this cardinal right, when every silly old woman claims the right, with her "child's truck," to make its little spirit cry out, as it lingers a moment about its late tenement, before its flight to heaven,

> "When I think how quickly I was done for,
> I wonder why I ever was begun for."

Well, dear little spirit, you were not begun for that, certainly, but this is one of the inevitables of a faulty civilization, a leading manifestation of which is, an unquestioning concession to bald presumption and pretention.

Dr. Toner shows us that the death-rate of children is much higher in cities than in the country, but we are not warranted in arguing, from this, that the country air is more salubrious for children than that of the city. Unquestionably newspaper medicine, almost unknown in the country, and constantly on the tongues of city mothers and on the stomachs of city children, goes far towards accounting for this difference. The catnip tea of country crones, alternated with that of soot, is a very different thing from the elegant but deadly soothing poisons of the newspaper-educated and stormy-mannered city crone.

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To lower this dreadful death-rate of the innocents, Dr. Toner, with characteristic philanthropy, suggests "free parks, where hundreds of lives might be saved from the annual ravages of the cholera infantum, and the decimation of the heated term of summer."

A New York city paper, in allusion to Dr. Toner's suggestion, says:

"Scattered all along the Atlantic seaboard, within easy reach by steamboat or rail, are the beautiful and verdant spurs and valleys of the Blue Ridge and Alleghany Mountains, which offer just such retreats as are needed. No expense is spared to preserve the shattered constitutions of adult invalids, and to secure them every comfort of art; and certainly, in a merely economic point of view, the interests of humanity and civilization demand equal provision for the infant classes of society. Every effort should be made to reduce the waste of life to which they are subject, as, in the lowest view of the case, it is a loss which no society can afford to sustain."

No appropriation will ever be made for so philanthropic a purpose. Our civilization does not take that direction. The millenium will come long before the vision of the good and charitable will behold these arcadean paradises, with an army of babies pursuing butterflies up the sunny slopes of mountain spurs, or along the bright water that dashes down the gorge, kissing vine and blossom on its way, with the images of a thousand children, with smile-wreathed faces, on its sparkling bosom. No; our civilization does not point that way. There is no centralization in that, whatever there may be in our politics. Every man is for himself, and every woman and every child—all distinct and independent individualities dabbling in the mud of a new creation. Does one sicken and die, he is coffined in his own mud, and next day forgotten—man, woman, or child, alike forgotten! Is it to be expected that a people are to make a grand provision for the preservation of their children, who make none for the preservation of themselves, but who, in the language of the Sierra poet, "grin at death"? Suffocated in coal mines, blown up by the bursting of old boilers, or while trying new ones, crushed in coupling cars, precipitated through bridges on railroads, and murdered out-

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right by the car-load; stabbed and shot at noonday, and the murderer, after a slight jail apprenticeship, is, no one knows where, unless lynched, to the bewilderment of the law, which is thus robbed of its legal prey. No; such an adult population is not to be expected to stop in its mad march from pursuing poverty to build play-houses for children. In truth, Young America is under precious little obligation to any one, and he is shrewd enough to know it. He is, to begin with, the result of a carnal accident. He was not bargained for, and in many instances every effort is made to obliterate all evidences of the existence of his accidency. When he gets here, by a miracle, he is not so much fed that he may grow and develop, as to stop his everlasting yelling; and he is "soothed" to the verge of the grave more than once for the same end.

But we have not time to discuss the subject now.

We cut from a newspaper containing an able editorial favoring Dr. Toner's views, the following, so worded as to seem to the ordinary reader an editorial:

DELAYS ARE DANGEROUS.—Mothers, as you love your offspring, don't fail to get Mrs. Whitcomb's Syrup for soothing children. Read the advertisement in another column.

When the *San Francisco Medical Journal* proved that Mrs. Winslow's Soothing Syrup was a solution of morphine, those interested in the sale of it were indignant, but that journal silenced them, and now we have Mrs. Whitcomb's Soothing Syrup!

When our civilization shall so change as to insure the incarceration, as criminals, of a class it now flatters and enriches, the city will become as healthy for children as the country. Within a week, we have been credibly informed that a bright-eyed little miss of five summers, in a drive with some ladies, became impatient with the horse, which was rather lazy, and required the occasional application of the whip to prevent his stopping to bite the flies. "O, go long, ole hoss," exclaimed little Betsey Jane Jemima; "you must got womb disease."

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Now, here the ears of a babe had become familiar with a phrase concerning an organ that her grandmother died unconscious of the existence of, save as a dreadful Bible word. We intend nothing against a reasonable womb practice; but these dreadful ulcers, this trimming of clitorises, and slitting up the cervix,* and hasty appeal to instruments, we shall oppose while alive, and leave, we hope, a not impotent leaven to work on when we are dead.

LIGATURE TO INNOMINATE ARTERY—SUCCESSFUL OPERATION FOR SUBCLAVIAN ANEURISM.

REMARKS ON THE CASE OF DR. SMYTHE.

APPREHENSIVE that injustice may have been done Dr. Andrew Woods Smythe, of New Orleans, Louisiana, by a remark in parenthesis, on page 175, last number (September) of this journal, I wrote to Dr. Heustis, of Mobile, Alabama, who was Secretary to the Anatomical and Surgical Section at the meeting of the American Medical Association in that city, in May, 1869. In reply, he writes that he had no recollection that Dr. Smythe declined to present his case to the section, but supposed his patient could not then be found, as he was brought before the Association, where Dr. Heustis distinctly saw the cicatrix, which was quite a large and lengthy one.

In the twentieth volume of the *Transactions of the American Medical Association*, for 1869, the only reference to the subject under consideration is that "Dr. Eve spoke of the case

* We know of an instance of a practitioner gravely proposing to slit the neck of the uterus to let a blighted ovum through!!

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of ligature of the innominate artery, presented before the Association to-day, and requested that a committee of three be appointed to report upon it. Dr. Logan, in reply, stated that the case had already been reported by Dr. Smythe, in a medical journal." Being thus disposed of, the opportunity of the American Medical Association reviewing and placing its *imprimatur* upon this unique, most remarkable, and unprecedented surgical operation, was lost to its performer. It is true, members were invited, during one of the sessions, and a few minutes set apart to examine the patient, but no official report was expected, as one thus made, after a mere inspection of the case, would have been worthless.

Surely such an operation, one in which all other attempts had failed, and which, moreover, has never yet been repeated in the subsequent experience of more than eight years, did deserve due deliberation and minute investigation. That it did not secure proper consideration was certainly not my fault, for I did all I could, as Chairman of the Surgical Section. According to the proceedings of scientific bodies, and parliamentary custom, the reference of the case to a committee was the appropriate motion, when it might have been thoroughly examined, and judgment obtained from the highest medical authority of America.

The account of this singularly successful operation was published by Dr. Smythe in the *New Orleans Medical Record,* it having been performed on the 15th of May, 1864, in the Charity Hospital of that city; the operator was assisted by Drs. D. L. Rogers, of New Rochelle, New York, (not by Dr. J. Kearney Rogers, of New York city, now deceased,) Holliday, Boyer, Bacon, and Orten. Ligatures were applied to the innominate and right carotid arteries. Fourteen days afterwards a hemorrhage occurred to syncope, but was arrested in two days by lint and compression, with a weight. Small shot were next poured into the wound, and the ligature to the brachio-cephalic artery pulled away. On the 17th of June, thirty-three days after the operation, about half of the shot were picked out, when the bleeding recurred. July 5th he

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had a terrific hemorrhage, and the patient again fainted. July 8th, fifty-four days after the first operation, the vertebral artery was tied. The circulation in the right arm now became very feeble, so that the brachial artery appeared occluded, and the limb œdematous, but in a few days these unpleasant symptoms subsided. The ligature to the vertebral came away on the tenth day after it was applied, when the patient gradually improved, and was pronounced well the 15th of September, four months from the date of the operation upon the brachio-cephalic and right carotid arteries, being the first and only successful application of a ligature to the innominate.

The operator, in this case, deduces the important lesson that whereas, in twenty recorded instances in which ligature to the innominate, or subclavian artery, in its first portion, *without that of the vertebral*, having proved fatal, it is reasonable to suppose that it would always do so.

In Mr. Erichsen's *Science and Art of Surgery*, 1869, we find in the cases of ligature to the brachio-cephalic artery, recorded, only one *recovery*, of twelve others, all fatal, and this is Dr. Smythe's. In Dr. Gross's *System of Surgery*, 1872, there are tabulated fourteen cases, all fatal, with the same exception. Both note the tying of the vertebral artery. But Mr. Poland, in *Guy's Hospital Reports*, 1872; the London *Practitioner*, the Philadelphia *Medical Times*, 1872, and Dr. Parker, of New York city, 1867, ignore this case.

In the attempts made to obliterate the brachio-cephalic artery, published in this journal July, 1856, reported in a paper read before the Tennessee State Medical Society, after recording the many failures, the question was asked, who will again venture to tie this artery? Dr. Smythe has answered it triumphantly; still, so near did his patient come to dying, and so fearful are the risks in its performance, that the question may be repeated, who ventures next? P. F. E.

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REVIEWS.

A System of Surgery: Pathological, Diagnostic, Therapeutic, and Operative. By Samuel D. Gross, M. D., LL. D., D. C. L., Oxon, Professor of Surgery in Jefferson Medical College of Philadelphia, &c. &c. Illustrated by upwards of fourteen hundred engravings. Fifth Edition, greatly enlarged and thoroughly revised. Philadelphia: Henry C. Lea. 1872. Two vols., pp. 2098.

Through the kindness of the Publisher, these volumes have been placed on our table. They are magnificent, comprising, as they do, the result of the long lifetime study and experience of its distinguished author. When the first edition was issued, our Senior Editor, while he spoke in the highest terms of the work, facetiously remarked, that no one except the proof-reader would ever read them through. He is most generally correct, but in this instance he was mistaken. We have read every line in the book, and in every edition that has been issued from the press, and are now busily engaged in reading this, the last edition.

It is entirely unnecessary to go into any analysis of this great work. In his preface, Dr. Gross says: "The object of this work, as set forth in the first edition, in 1859, is to furnish a systematic and comprehensive treatise on the art and science of surgery, in its broadest sense—one that shall serve the practitioner as a faithful and available guide in his daily routine of duty." The object has been most thoroughly accomplished. The present edition is a complete revision. The text is greatly increased, many new wood-cuts added, and the whole science of surgery written up to the present time. It is only necessary to mention that it is from the house of H. C. Lea, Philadelphia, to guarantee that the work is put up in the best style of the art. No physician's library will be complete without it. W. T. B.

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HALF-HOUR RECREATIONS IN POPULAR SCIENCE: A Series of Papers, in monthly parts, compiled from the works of the most popular Scientific writers of the day. Edited by DANA ESTES, and published by Lea & Shepard, Boston.

We have received Nos. 3 and 4 of the series, and, from a careful reading of them, are convinced that it is a happy hit, and we are constrained to believe that it will prove very popular, as well with the man of science as with the general reader, for the subject matter seems to have been chosen, as regards scientific worth, from the best writers, and with a view to plainness and perspicuity, to suit the understanding of the average "American reader," devoid, as they are, as much as possible, of annoying (to the unscientific reader) technicalities.

Prof. Schillen, the author of matter in the two numbers before us, seems to possess, in a high degree, that beautiful art of using phrases exactly adapted to the conveying of ideas to those he would have understand; it is this that gives us an easy entrance into his thoughts, and with delight we hearken to him who is so readily understood. This art—perspicuity—although much of a natural gift, may be highly attained by reading the writings of such men as the author, Prof. Schillen.

No. 3 contains "Spectrum Analysis Explained," illustrating its uses to science, and including the theory of Sound, Heat, and Color. The work is founded upon a series of lectures delivered by the author, during the winter of 1869, before the "Society for Scientific Lectures," in Cologne, and furnishes one of the pleasantest and most lucid descriptions and explanations of the discovery and its advancement that we have yet seen. The style is as elegant and simple as common sense can make it.

No. 4 contains Spectrum Analysis Discoveries, showing the application, in microscopical research, and movements of the heavenly bodies. It is a continuation of the last number, by the same author.

Each number contains a beautiful lithograph, illustrating, in the one, the spectrum of four or five of the most common

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elements, and in the other the solar prominences observed by Young, in October, 1869.

The whole is gotten up in Lea & Shepard's usually good style, and the price of each number is 25 cents.

A WHISKY FORMULA.

"Ten gallons of kerosene, three pounds of potash, one ounce of strychnine, mixed with soft water."

The *Medical World* says "it was according to this cheerful, not to say convivial, formula, that a quantity of 'whisky,' seized in Newton, Massachusetts, recently, was compounded, the recipe having also been found in the possession of the unfortunate dealer. If you want 'gin,' add *quantum sufficit* of oil of juniper! The mystery is that men who drink this diabolical fluid do not drop down stone dead at once."

DIFFERENCE BETWEEN MALE AND FEMALE.—The New York *Record* is responsible for the following: What difference is there between a man and a woman? Answer—*A vas deferens!*

[How vast! one can't conceive.]—*The Clinic.*

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NASHVILLE

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SECOND SERIES.

VOL. 10. NASHVILLE, NOVEMBER, 1872. NO. 5.

Original Communications.

MEDICAL TOPOGRAPHY OF EAST TENNESSEE.

BY F. K. BAILEY, M. D., OF KNOXVILLE.

Read before the Tennessee Medical Society, April, 1872.

[CONTINUED FROM THE OCTOBER NUMBER.]

In the *Southern Journal of Medical and Physical Sciences* for May, 1857, is an article by Richard O. Currey, M. D., entitled "Notes and Observations upon the Epidemic Cholera, as it appeared in Knoxville during the month of September, 1854." Dr. Currey states that, previous to the 1st of August of the same year, he was a resident of Nashville, and passed

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through the epidemic as it prevailed there. Previous to its appearance in Knoxville, a malignant disease existed at Loudon, Madisonville, and Philadelphia, which the resident physicians pronounced cholera. During the month of August there was an unusual number of cases of dysentery and diarrhœa—some malignant and fatal in their results. As is usual in such cases, the disease was, through policy, pronounced malignant cholera morbus. Soon the storm burst upon the community, and cholera was among the people.

Dr. Currey mentions a peculiarity in the relative humidity of the atmosphere. It is asserted that there had not occurred, at any previous year, such deficiency in the quantity of moisture of the atmosphere—at one time, during the prevalence of the epidemic, declining as low as thirty-nine hundredths in every cubic foot of atmosphere. At night there was a heavy fog from the river and creeks, to elevate the degree of humidity nearly to saturation; but under the scorching sunshine of the next day, this only increased the tendency to the disease.

Dr. Currey states that, on the night of the 31st of August, the relative humidity was one hundred, which is taken to indicate saturation, owing to the fog; but the next day the rate was fifty per cent. below saturation. This condition continued until the 24th of September, when a copious shower cooled the air.

Dr. C. speaks of the uniformity of the prevailing winds as an interesting peculiarity. We have not space to give his observations in full, but will state that the report shows twenty-five deaths from the 28th of August to the 23rd of September, while a constant Northeast wind was blowing.

In the same journal, for August, 1857, is an article by S. P. Crawford, M. D., of Greenville, giving a short sketch of the diseases in his locality. He describes particularly a prevalence of influenza in March, April, and May, 1857. All classes were obnoxious to it, but it affected children and adults differently. In children, its onset was sudden, and most usually in the form of otalgia, paroxysmal in its type or character, and generally continuing until abscesses formed, and were dis-

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charged through the external ear. There was high fever, hot skin, cough and expectoration, with pain in the chest simultaneously with, or soon following, the ear-ache. With adults the otalgia was not so marked, there being simply deafness and roaring in the ear.

In every case, in all ages, otalgia was an unfailing attendant. In adults, the disease most usually merged into pleuropneumonia. In some cases, of both young and old, the disease located upon the stomach and abdominal organs generally, and resembled gastritis or dysentery. Cough and expectoration were the concomitants in all cases. The duration was about ten days, going off with profuse perspiration, which had to be arrested, in many cases, to prevent fatal exhaustion.

Dr. C. states that he had about one hundred cases under his charge during its prevalence, and that it was general in every direction outside of his practice.

In the *East Tennessee Medical Record*, for May, 1853, is an article on the subject of "Milk Sickness," by Dr. John T. Jones, in which the writer takes the position that the poison producing milk-sickness exhibits characteristic phenomena on the economy peculiar to mineral poisons. He states that it has had a traditional existence in East Tennessee for many years. As the *casus morbi* in milk-sickness is, to this day, an unsettled question, it will not be discussed at this time. During my own residence here, I have not heard of the disease as having a "local habitation" among these hills.

In the *East Tennessee Medical Record*, for August, 1852, is a report on "Practice," by Dr. F. A. Ramsey, for the months of January, February, March, and April, which contains much of professional interest, and it would be desirable to copy it in full in this connection, but space will not permit.

Dr. Ramsey gives a tabular statement for each month, with the diseases treated, number of cases, and result. In his recapitulation is given the whole number of cases treated—two hundred and thirty-one (231), and but six fatal; of these, three were from pneumonia, one from a burn, one from albuminuria, and one from consumption. Among the diseases re-

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ported, most of them are those incident to winter and spring, and one important lesson is conveyed on perusing his article, *i. e.*, this region of country, at that time, was remarkably free from disease of any kind; in other words, the locality was emphatically salubrious.

It will be proper to state, in this place, that among the published papers by East Tennessee medical men, an article by Dr. J. A. Long (in the *Record* for August, 1852,) is of interest. The subject is "Typhoid Fever," and the writer gives a very good description of the disease, showing that he had been conversant with it, and profited well from his experience.

Dr. Jas. McNutt has contributed an occasional paper to the medical literature of this section; as also Dr. Barr and Dr. Pride.

In the *Southern Journal of Medical and Physical Sciences*, May and July, 1855, is an article by Dr. B. Frasier, then of Pikeville, upon "Scarlet Fever." He says:

"The history of scarlatina in East Tennessee, as it has prevailed for several years, is, as I think, intimately connected with other febrile diseases, which have, to some extent, influenced its action."

He thinks it never prevails as an epidemic during the existence of remittent and intermittent fevers, where the miasmatic poison is extensively present, and in a concentrated form.

"About the year 1836," he says, "scarlatina made its appearance in some of the lower counties of East Tennessee, and prevailed as an epidemic for several years, gradually extending its ravages throughout most of the counties in the East end of the State. It was generally of the anginose variety, attended with high excitement. In most of the fatal cases under my observation, death resulted from sloughing in the throat.

"There were some cases," the Doctor continues, "in which the vital energies seemed completely overpowered from the first. In these, the eruption was defective, and of a dark hue, and the throat but slightly, if at all, involved."

"About this time (1838), there commenced, in the lower counties of East Tennessee, an extraordinary development of

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miasmatic fevers, attended with high excitement, which grew worse and worse every year, until the fall of 1840, when it had reached its acme, and prevailed over the whole country in every neighborhood, and in every house, and nearly in every individual. So general was it in Hamilton County, where I then resided, that I do not know of but two individuals in the whole county who were exempt from sickness during the year. From that year the disease gradually abated for three or four years, losing its sthenic character more and more, until the fever, that formerly bore the lancet, and was benefitted by it, required less depletion, and assumed decidedly a typhoid type."

"During this period, scarlet fever was not heard of over the whole region visited by the miasmatic influence. Whether this was owing to the powerful and all-prevailing poison of a character incompatible with the poisonous agent that produces scarlatina, or from some other unknown revolutions in the atmosphere, I am unable to say. It is a reasonable hypothesis, at least, that attributed it to the former cause, as it has been long observed that powerful and prevailing epidemics always mask and conceal, or expel, all other diseases prevailing at the time of their onset.

"Other portions of East Tennessee were not, however, free from scarlatina, during this period. In some of the upper counties it still lingered until, about July, 1843, it broke out afresh, and with renewed violence.

"Greene, Washington, and Sullivan, suffered the most, and so dreadful were its ravages there, that it swept off, in less than six months, more than six hundred children. There it often assumed a most malignant type; its victims were stricken down from a state of health, and died, often, in a few hours. Every mode of treatment was tried in vain; physicians were foiled on every hand, and candidly confessed themselves unable to cure.

"In the lower portion of East Tennessee, and especially along the border of the Tennessee River, intermittent and remittent fever gradually became less frequent from 1840 up to

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the last year (1854)—some years being a little more prevalent than others; and as the prevailing poison became less and less diffused, the fevers took a more asthenic type, were more prostrating, and required less depletion and more stimulation, and occasionally a case would occur, bearing many of the marks of typhoid fever, though of a mixed and intermittent character. At length, however, typhoid fever began to prevail regularly during the winter and spring, not assuming all the symptoms described by authors, but enough of them to be ranked as such."

* * * * *

"In the spring of 1844, reports reached us, at Chattanooga, that the disease was prevailing in some of the adjoining counties, and very soon it showed itself there, and in the neighborhood.

"The first cases were in children that had not been exposed in any way. There were no cases within many miles, so that it could not have been propagated by contagion, but must have sprung up *de novo*, or have been transmitted through the air. In this epidemic, the cases assumed all grades, from the mildest to the most malignant. Many of the cases were so mild as not to confine the patient to the bed, while others were intense inflammation of the throat, and high excitement. The disease did not prevail as an epidemic, but seemed to select its victims from here and there, among all classes and conditions, uninfluenced by season, in its violence or frequency."

In another part of this paper is given some topographical facts in regard to Knoxville, as it stood in 1838. It will be proper, in this connection, to present some further remarks of the same character, upon the city and its surroundings, as seen at the present time.

It will be remembered that when the severe visitation of disease made its appearance, the town contained but about two thousand inhabitants, and that the population was mostly confined to the neighborhood of the river and two creeks tributary to it. Now, in the city and suburbs, there are some ten or twelve thousand souls. The extension has been made prin-

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cipally to the north, east, and west. At a distance of less than half a mile from the river, and in the locality mentioned as the "flag-pond," are situated the railroad buildings. The filling requisite to laying the track, in a great measure obliterated the natural depression of surface, and the first creek is less able to overflow its banks and inundate the adjacent lands. The mill-dams are so much lowered that little or none of the water can become stagnant. The ravines and low places, in different parts, have been filled by the extension of streets, and consequently there has been a great improvement, in late years, in the surface.

Since 1865, the town has extended north of the railroad track, upon land which is rolling and fully susceptible of drainage. In fact, the whole territory upon which the city is now built, and will in future be extended, is of such a character, that drainage will be easy; and besides, in the old original town, the nature of the soil is such that water will percolate through it, and find its way to the river. There are some cavernous openings in the rock formation, which have been encountered in digging for cisterns. In the yard of the Lamar House, an old hotel situated in a central point, was found a cavern such as alluded to, which has, for many years, served as a perpetual drain of the premises. There are three other openings of the kind at different points, and no bottom has been found to either of them.

For the last ten or fifteen years, Knoxville has been healthy to a degree almost unprecedented in the history of like towns. During the war, from causes incident to martial operations, there were, at times, accumulations of filth, which would naturally engender disease, but the favorable nature of the surface for drainage, and the excellent police regulations, carried into effect by the proper authorities, prevented any considerable amount of sickness. Cholera prevailed to some extent in 1866, but not so as to excite any panic among the people. Smallpox was prevalent during the war, but principally among the soldiers and the colored population, who were, from obvious reasons, but little likely to be protected by vaccination.

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The permanent residents, it is said, were generally free from its ravages.

The water used for drinking purposes, by the inhabitants, is mostly derived from springs, which gush out from fissures in the rock formation along the creeks, and in the vicinity of the Holston river. The water in these springs varies somewhat in taste, but it is uniformly more or less impregnated with salts of lime. A great many families use filtered rain-water, and all houses, erected of late, are being provided with capacious cisterns.

From the meteorological record kept at the East Tennessee University, for January, 1868, we glean the following:

Mean temperature for said month, at 7 a. m., 32° 45'; at 2 p. m., 37° 56'; at 9 p. m., 39° 12'; mean temperature for the month, 35° 05'. Coldest day, January 30th, mean for the 24 hours, 20° 16'. Extreme temperature at 7 a. m., 14¾° and 50¼°; at 2 p. m., 23¼° and 53¼°; at 9 p. m., 22° and 51°.

Mean Barometrical height for thirty-one days, 29.080.

The extremes of temperature, during the year 1868, were 14° and 92°; mean, about 60°. From 30° to 35° may be considered the mean of winter, and from 65° to 70° the mean of summer.

It may be well to devote a little space to the question whether pulmonary consumption is common in East Tennessee. From the climatic characteristics it would seem favorable to its prevalence. During each cold season, pneumonia is common. In the country districts, especially in more elevated regions, the people are greatly exposed to vicissitudes, not so much as a necessity as from want of energy, and provident care in the construction of dwellings. Also, a great many are improperly and insufficiently nourished, and consequently, decay of tissue would result.

Very many sink from pulmonary disease as a result of pneumonia and catarrhal affections, when there is not the least tuberculous taint.

Taking into consideration the above stated facts, with others which might be mentioned, this region cannot be said to en-

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gender phthisis. With a proper observance of hygienic laws, we have no hesitation in saying that this elevated region is not only not favorable to lung disease, but is a good and eligible section for the resort of those who are of a tuberculous diathesis. Observation has proved this latter to be a tenable idea. Many, coming from the Eastern, Middle, and Northern States, have received benefit from the change. Asthmatics, particularly, have been benefitted by a short residence here, and many, who have been freed from that distressing affection on coming here, have found at once, on returning North, a return of the disease.

Catarrh, which is so common in the Atlantic States, and along the great Lakes, is very generally improved after its victims spend one winter in this locality. To show that catarrh is a result of cold air, we will state that those suffering from it will feel an aggravation when the coldest weather occurs here. Especially during the winter just past has this fact been noticeable, for the mercury has gone lower than usual, and the winter has been unusually cold and cloudy.

The influence of climate has not received the attention it deserves in our country. In Europe, this has for many years been recognized, and in our English works on medicine much stress is often laid upon change of residence, even without leaving the British Isles.

The Pacific slope excepted, no part of our domain can be said to be as salubrious as the region embraced by Southwestern Virginia, Western North Carolina, Eastern Tennessee, and Northern Georgia. It is a remarkable fact that the inhabitants of the region just mentioned have, for many years, been noted for their longevity, as well as unusual height of stature.

In the preparation of the foregoing, the main dependence for material has been from published statements; and no systematic effort has been made to solicit contributions from resident physicians. Doubtless much might have been procured from such a source, and, in future, your reporter may be so situated as to obtain material for a more extended report. It

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was deemed rather important that a compiled record of past contributions and local histories should be written, reaching to the present period.

The following, however, has been furnished, and is given as a part of this report. The writer is a young man, lately commencing practice, and has shown a desire to contribute his share to our medical literature. It is given *verbatim*, as communicated:

RICHMOND, EAST TENNESSEE, Jan. 15, 1872.

F. K. BAILEY, M. D.—*Dear Sir:* Doubtless it is an idea only too prevalent, especially as it regards the advancement of authentic medical topography and climatic research, that East Tennessee is nearly, if not entirely, exempt from that vast train of ills of malarial origin, that hangs hard upon the fortunes and welfare of the inhabitants of miasmatic districts. Especially, we surmise, is this idea prevalent among the medical men of the North and East, who, from the known general salubrity of our climate, properly regard us as inhabiting the "Switzerland of America," and exempt from the class of diseases characterized by periodicity. While this, to an agreeable extent, is true, yet the clinical record of too many practitioners attest the fact that it is far from being universal.

My territory for actual observation extends from Charleston, situated on Hiawassee River and East Tennessee and Georgia Railroad, seventy miles from Knoxville, to Chattanooga, comprising a distance, via Hiawassee and Tennessee rivers, of about sixty miles, and about forty-two miles via the railroad.

We would naturally conclude, *a priori*, that this extent of country was essentially malarious, from the surface, and condition of climate. This portion of country is, in the main, undulating, and in some few districts so well covered with forest, and so well drained, or less intersected by water courses, as to rank with Upper East Tennessee in freedom from malaria. But as we pass down the rivers, we find that the surface alongside, and far back from the banks, becomes low and boggy, with numerous sinks to contain stagnant water during dry weather; and thus, around the edges of these pools, for miles in extent, vegetable decomposition, encouraged by a high temperature, goes rapidly on, giving off the most pernicious miasmata, producing every grade of malarial trouble, from the mildest periodic attack to the pernicious intermittent properly so called, with the various periodic neuroses.

But again: Coming down from the central and higher districts are a number of large creeks (*e. g.* Candy, Mouse, Savannah, Sale, and Gunstocker,) along whose fertile slopes vegetation springs in the greatest luxu-

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riance. During the spring tides these overflow their banks, and, falling again into low water-channels, leave moisture and vegetable accumulations, two of the admitted essential agents in miasmatic production.

Again, some districts in this territory are notorious for numerous small ponds, &c., which enlarge and diminish in proportion to the amount of rain-fall, and these surrounded by heavy vegetable growth.

It must be evident to the most casual observer, from the above brief topographical sketch, that the leading affections of such a country will be malarial in their nature.

As to moisture, the amount of rain-fall is very large, and of late years, very wet springs have been the rule. The water from the rivers backs far up the various creeks alluded to, and not only so, but overflows much of the low lands; and when the waters fall, vast extents of moistened vegetation are left exposed, besides the ponds, bogs, &c., thus created.

The temperature is about the same as that of the rest of the State, and suffice it to say that thermometrical observations made by myself last year, show that a sufficient daily mean exists between the 1st of June and the 15th of July, in connection with the other agents, to generate the poisons.

It thus appears that the great generating trio, viz., moisture, a high temperature, and vegetable decomposition, is here in all its power.

As we would naturally expect from the foregoing, the prevailing diseases in the portion of country described, are remittent and intermittent fevers, malarial dysentery, pernicious intermittents, malarial cachexia, splenic enlargements, with all the concomitant ailments that arise from degenerate blood and visceral torpor, besides the various periodic neuroses, concerning which I will not encumber this paper.

I will note, in passing, the greater tendency, each successive season, to cerebral congestion in intermittent fever. Latency, the great law of the poison, is here demonstrated most plainly; patients partially treated in the fall, "quit shaking," assume what may be called the malarial cachexia, and in February or March commence complaining of chills again, or, to use the common expression, "go to chilling again," but in a little different manner; it is mostly an inexpressible feeling of wretchedness, yawning and stretching, which continues some longer than a "shake," and then is followed by a very high fever, and finally a moderate sweating stage.

I would not presume to say that this specific morbific influence affords a protective power, but that it appears to an observer that some other diseases, and especially the phlegmasia, generally are somewhat less common than in non-malarious districts.

Yours, &c., N. E. Knox, M. D.

The following communication has been received, which I take pleasure in presenting at this time. The reporter now

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lives in New Market, Jefferson County, Tennessee, and is still practicing his profession:

MALARIOUS FEVERS,

ORIGINATING IN THE DECAY OF VEGETATION.

The following incidents, which occurred in 1837, while I was practicing in the town of Newport, Cocke County, Tennessee, will illustrate and verify the theory that malarious fevers have their origin in decaying vegetation. The little village of Newport is situated on the banks of the French Broad River. The river makes a bend about one half mile to the south of the town, and at this point, in winter, it broke over its banks and formed a slough extending nearly to the village.

In summer this slough dries up. The banks of this low place were covered with small trees and undergrowth. In the summer of 1836, the owner of the property cut down the trees and small growth, and filled up the slough, thinking thereby to permanently close it. During the winter, however, the slough filled up with water, as usual. The following summer it dried up, and in autumn an endemic of malarial fever of great severity broke out. Not a solitary individual in the village escaped, and nurses coming from the country adjacent, to care for the sick, were invariably stricken down after remaining in the town but a few days. I would remark that the prevailing winds, during the summer and autumn, are from the South, and consequently passed over the decaying vegetation in question before reaching the village.

The next year the slough was cleaned out, and the fevers stopped as suddenly as they had begun.

During the endemic, the following incident occurred, that serves to show how the malaria inhabits low places, and how elevated localities are comparatively free from its influence.

A party of travellers, in wagons, were passing through the town. All of the wagons, except one, consisting of a family of seven, went through the town, and encamped on a hill beyond. This family stopped on the bank of the river, for the purpose of having some repairs made to their wagon.

The party moved on to the place of their destination—a town in South Carolina. Every one of the family of seven that encamped on the bank of the river, were seized with malarial fever, while none of those who encamped on the hill were affected.

There is a region on the borders of North Carolina, but in Cocke County, Tennessee, that is affected with the poison that produces milk sickness. I have seen a great deal of the disease, and have my own ideas about its production, as I presume every one has. I do not think it is produced by any poisonous vegetation, but is exhaled from the earth, probably from some

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kind of mineral—(the mountains, in this county, abound in all kinds of mineral ore). This, I think, is proved by the fact that if the cattle are not allowed to go into the infected districts until the dew is evaporated by the sun, they are unaffected; and also by the circumstance that I have observed often, that if fodder or oats be spread upon the ground and beaten while wet with dew, the disease is produced; whereas, if allowed to dry, the animals escape.

In my opinion, the poison arises as a vapor, and is caught up by the dew, and when the dew is evaporated, the poison is again thrown off as a vapor.

J. M. Burnett.

The foregoing report is rather hesitatingly presented. It occupies much more space than was at first expected, but the material appeared worthy of being compiled in one paper. It was copied from journals which have been preserved by different medical men resident here, and constitutes a partial history of medical observation in this section. In closing them, it may not be amiss to state that the Medical Society of East Tennessee was organized about twenty years ago, and continued, with the exception of two or three years, in successful operation until the autumn of 1860. It was revived in the spring of 1871, and, in connection with the Knox County Section, has been regularly and well sustained.

The names of gentlemen who contributed the material from which this report is mainly compiled, are found upon its roll. Some have died within the last twelve years, and others still live as active members of the organization, and of the profession. Most of the junior physicians are enthusiastically engaged in promoting the interests of organized efforts, and some of them give promise of distinction.

In regard to the prevalence of disease in Knoxville and vicinity during the past four years, suffice it to say that no endemical sickness has visited us. It has been emphatically healthy. In summer, there have been a few cases of *cholera infantum* and ordinary diarrhœa among the children. Measles prevailed to some extent in the winter of 1869–70, continuing into the spring months. Scarlet fever has prevailed only sporadically, and invariably of a mild type. Generally, in May

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and June of each year, a remittent form of fever will occur, but of a mild type. Intermittents proper do not originate here. Febrile attacks generally observe something of periodicity, but occasionally we find a case of simple continued fever, which will come to a crisis in from two to five days, convalescence following without any sequalæ at all. Nouralgia, as a result of exposure to cold and torpidity of the alimentary canal, is quite common, particularly among females.

Constipation appears to be almost an universal condition in all ages and sexes. One explanation of this may be in the fact that fruit is not used as freely as it should be. The food is mostly of a concentrated nature, and consequently there is less of bulk in the ingesta. Fruit culture is receiving much attention of late, and, in a few years, it may be expected that a great change will be seen in the industrial and hygienic habits of the people.

A few additional remarks in regard to the Medical Society of East Tennessee may not be amiss in this connection. On the 7th day of May, 1845, a number of medical practitioners met in convention at Knoxville, and organized the Society. It continued in successful operation most of the time, until the fall of 1860, when the last meeting was held until it was revived in the early part of 1871.

A clause in the Constitution provides for auxiliary societies in the several counties, and accordingly a Section for Knox County is at present in successful operation, holding meetings on each alternate week.

It is our hope and expectation that the subject of medical organization, and the practice of reporting cases coming under their observation, will receive increased attention. If each one would duly appreciate his obligations, which were in effect assumed and self-imposed on entering the profession, a wonderful and gratifying change will soon be observable.

KNOXVILLE, TENN., March, 1872.

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REMARKABLE CASE OF HEPATIC ABSCESS.

BY JAS. F. WEEDS, SURGEON U. S. ARMY.

On the 22nd of September, 1871, the writer, in consultation with Drs. T. L. and J. W. Maddin, of this city, first saw Lieut. William J. Reese, Sixth U. S. Cavalry.

Lieut. Reese graduated at the Military Academy at West Point, in the Class of 1869. On the 15th of June following, he received a Lieutenant's commission, and was assigned to the Sixth Regiment of Cavalry, then stationed in Texas. He joined his regiment during the summer, and continued on duty in that State until the autumn of 1871.

In person he was tall, rather slender, and well formed. His appearance was prepossessing, and his manners affable. He was a young officer, of much merit and great promise. His complexion was dark, hair and eyes black; his temperament bilious, his habits strictly temperate, and his morals unimpeachable.

Prior to his residence in Texas, he had enjoyed excellent health; but during his tour of duty in that State, he suffered severely from repeated attacks of malarial fever, that so impaired his health and shattered his constitution, as to render it necessary for him to accept a leave of absence and come to this city, where his sister and other near relatives resided, hoping to be benefitted by a change of climate.

We found him much emaciated, weak, and feeble. He could only walk a short distance with difficulty. The pulse was quick and irritable, volume small, and very compressible; the tongue was moist, heavily coated, broad and flabby, and the lateral borders indented by pressure of the teeth; respira-

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tion accelerated, superficial, and somewhat labored; lips pale; was icteric; had a dry hacking cough, and evening pyrexia without preceding rigors. His appetite was poor; bowels acted with regularity, and the abdominal muscles were hard and tense. Percussion showed both liver and spleen to be enlarged, and firm pressure made over the anterior and anterio-lateral border of the former elicited slight tenderness. He did not complain of sub-scapula pain, and hepatodynia existed in a slight degree—it amounted to only a dull, aching, uneasy feeling, in the right hypogastrium.

Dr. John W. Maddin thought he detected indistinct crepitus of the lower lobe of the right lung. Dr. Thos. L. Maddin and the author failed to distinguish any abnormal sounds in the thorax. We diagnosticated hepatic and splenic congestion, and anemia, the result of repeated attacks of malarial fever.

Quinine and iron was ordered, with a nutricious diet.

For several weeks there was no material change, only the liver gradually enlarged, and evinced, on pressure, a slight increase of tenderness. Post-meridian pyrexia occurred at intervals, but was readily interrupted by the administration of anti-periodic doses of quinine.

In the latter part of October, the Drs. Maddin and the reporter re-examined the case carefully and found as follows: The icterus had materially increased, and the surface assumed a tanned leather appearance; emaciation was progressive; the liver was very much enlarged, and more painful on pressure, and hepatodynia more severe. The liver now reached from a line an inch below the inferior border of the lower rib to the sixth right intercostal space; the anterior border of the gland could be distinctly felt, thick and rounded through the abdominal walls. The writer diagnosticated an hepatic abscess, with which opinion the Drs. Maddin coincided.

From this time, the liver enlarged rapidly, and by the middle of November, the gland extended from one and a half inches below the last rib to within half an inch of the right nipple, and extended far over into the left side of the abdomen. The intercostal spaces of the right side were broad and

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prominent, and the right hypochondrium was bulging to an unusual degree, so that, from the spinous process of the vertebra to the xiphoid cartilage, it was one and a half inches larger on the right than on the left side. Respiration became gradually more superficial and labored, and the pain in the right hypochondrium was rather more distressing; yet it was remarkable that such extensive disorganization of the liver should give rise to so slight a degree of hepatodynia; nor had the subscapular pain, usually so common in hepatites, hardly attracted attention.

Early in December, night sweats and hectic became troublesome; the appetite failed, and emaciation progressed rapidly. He was now too feeble to leave his room, and passed his time in bed, or in an invalid chair. The bowels were very little disturbed; occasionally there was a little diarrhœa, and now and then the feces were clay-colored; but generally the evacuations showed the presence of abundant bile.

We watched anxiously for evidence of adhesion of the liver to the abdominal walls, and for signs of the abscess pointing, but we watched in vain; there was neither redness nor puffiness of the side, and without these we did not feel justified in making an attempt to evacuate the abscess externally, and we could do little beyond supporting the flagging powers of life, by the use of a nutritious and digestable diet, and by the administration of stimulants and tonics, and giving anodynes to procure sleep and quiet pain.

About the middle of the month, a communication was established between the abscess and transverse colon, and for several days pus passed freely with the feces. The flow gradually ceased, and, for a time, there was a decided improvement in the condition of our patient. The pain in the right hypochondrium diminished, and the region of hepatic dullness decreased. Hectic and night sweats disappeared, the appetite returned, and for a brief period, we entertained hopes of speedy recovery; but time proved the hope was fallacious.

Early in January, 1872, anorexia returned, night sweats and hectic reäppeared together, with the whole train of symptoms

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heretofore enumerated. The liver had reached its former dimensions, and it was evident that the cyst was refilling.

On the 20th of the month, the abscess again discharged its contents in the bowel, and for two or three days pus was freely discharged with the alvine evacuations. At this time the gland exceeded in size its previous dimensions; it extended from half an inch below the right nipple to an inch and a half below the inferior border of the last rib. It pressed the heart out of its normal position to such an extent, that the apex beat was felt a little behind, and on a level with, the left nipple. And the right lung was so encroached upon, that the vesicular murmur could only be distinguished in its superior lobe. As on the former occasion, as soon as the abscess was emptied, there was a great improvement in the general symptoms, and the liver again decreased in size, but in a less degree than it had previously done.

By the middle of February the abscess had, for the third time, refilled, and again discharged its contents through the bowel. It was attended with the same phenomena as on the previous occasions. This time the improvement in the general health was well marked, but transient. The weather being favorable, our patient walked out, the first time for several months, and it proved to be the last.

In this manner the abscess continued to ebb and flow, the liver each time exceeding in size its previous dimensions, and the discharge of pus becoming more and more abundant. Each time the abscess refilled the constitutional symptoms increased in severity, and we felt assured that our patient was slowly, but surely failing. He complained of a great deal of pain in the lumbar region—a deep-seated tenderness was elicited by firm pressure over the right kidney. The urine was scanty and high colored, but a careful chemical and microscopical examination failed to detect in it anything abnormal, with the exception of an excess of the urates, caused by increased disintegration of tissue.

In the latter part of April, we felt assured our patient could not long survive under the debilitating effects of so vast a dis-

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charge. The hepatic cyst had, without doubt, become lined with a pyogenic membrane, that would secrete pus, and refill the cyst, as often as it could disembogue its contents through the intestines. We had long waited, and anxiously watched for evidence of adhesion between the liver and abdominal walls, so as to justify an incision being made to evacuate the abscess externally, but the evidence of such adhesion was very ambiguous, and did not warrant the operation.

On the one hand, if let alone, our patient must soon die from exhaustion; on the other, if an external puncture were made, without adhesion, he must die from general peritonitis. Under these circumstances the writer proposed to evacuate the cyst through a capillary canula and air pump, connected by a rubber tube, so as, on the one hand, to exclude the air, and on the other, by making only a minute opening into the abscess, prevent the pus from escaping into the abdominal cavity, should there be no adhesion. The Drs. Maddin concurred in the recommendation, an instrument was procured from George Tieman & Co., New York, and preparation made for the operation.

At this time the patient was suffering severely from hepatodynia; the liver was enormously enlarged; the intercostal spaces on the right side were very wide and prominent, and the side bulged out so that its measurement, from the xiphoid cartilage of the sternum to the spinous process of the vertebra, exceeded that of the left by two inches; the region of dullness extended from a point midway between the crest of the illium and lower rib, to the fourth right intercostal space; respiration was greatly interfered with; hectic and night sweats were extremely annoying; the lower extremities were œdematous, and he was very feeble and greatly emaciated.

On the 26th of April, with the assistance of Prof. Thos. L. Maddin, the reporter punctured the abscess through the side. To avoid the diaphragm, pleura, lung, and gall-bladder, a point for the puncture was selected half an inch to the inner side of the angle of the cartilage of right side; the trocar and canula were passed backward, slightly upwards, and to the

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right, for a distance of three inches, when the diminished resistance showed the point of the instrument had entered the abscess. After removing the trocar, opening the communication from the canula to the air-pump, and exhausting the air, a minute and interrupted stream of viscid sanguinous pus flowed out; but in consequence of the imperfection of the air-pump, it was impracticable to maintain a vacuum, and after an effort of an hour and a half, we were compelled to desist, without nearly emptying the cyst. We abstracted twenty-six ounces of pus. The small puncture was hermetically sealed, to avoid the possibility of the ingress of air.

After the operation, the intercostal spaces were narrower, but the bulging of the side was not materially lessened.

The operation was performed without an anæsthetic, and gave rise to very little pain, the patient laughing and talking during its performance; and although the cyst was but partially emptied, it gave great relief, and was, for a brief period, followed by comparative ease and comfort.

About this time my distinguished friend, Prof. Paul F. Eve, received from Paris an aspirator, which he kindly proposed to lend, should the cyst again require evacuating.

On the 4th of May, the abscess having refilled and the symptoms become urgent, the writer, assisted by Prof. Thos. L. Maddin, repeated the operation, with Dr. Eve's instrument. The seat of puncture was the same as before, the previous operation having demonstrated its safety; the trocar was directed a little more upwards than on the former occasion, and reached the cyst in about two and a half inches. Its introduction was attended with little pain. This time the pus contained very little blood, was less viscid, and flowed, in a full, continuous stream, until fifty-six ounces were drawn off. The pus was inodorous. The cyst was washed out with a weak solution of carbolic acid, hoping it would produce an alterative effect on the lining membrane, and lessen the formation of pus. The operation gave great relief, and for a few days the patient improved rapidly.

On the 6th of May, the writer left the city to attend the

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meeting of the American Medical Association in Philadelphia, leaving the patient in the care of Profs. Maddin and Eve, and Dr. J. W. Maddin.

On the 13th of the month, the abscess having become filled to distention, preventing sleep, interfering with respiration, and causing great distress, these gentlemen, for the third time, evacuated the cyst (with the aspirator), and removed eighty ounces of pus, which presented characteristics similar to that removed at the last operation, with the usual result of giving decided relief.

The writer returned to the city the day following, and the patient expressed himself as feeling quite comfortable.

On the 22nd of the month, only nine days after the last operation, the cyst was again filled to repletion, and accompanied with the usual train of distressing symptoms, as anorexia, hypatodynia, dyspnœa, hectic, and night sweats. In addition, the patient was very feeble, the pulse rapid and thready, and there was a slight tumefaction of the abdomen, which was somewhat tympanitic, and slightly tender under firm pressure. With the assistance of Profs. Eve and Maddin, the reporter, for the fourth time, punctured the cyst, at the point before selected, and drew off, with the aspirator, one hundred and twelve ounces of pus.

Toward the close of the operation, the patient complained of severe pain, and the diaphragm and the abdominal muscles took on clonic spasm, so that it became necessary to suspend it before the cyst was wholly evacuated. As soon as the canula was withdrawn, the spasmodic action ceased, and, as heretofore, the operation gave great relief.

On account of the unpleasant symptoms, we determined to delay the next operation as long as it was practicable to do so; but so rapidly did pus accumulate, and the cyst refill, that, on the 3rd of June, we found another operation was imperatively required. With the assistance of Profs. Eve and Maddin and Dr. Atchison, the writer, for the fifth time, emptied the abscess, and removed, with the aspirator, *one hundred and forty-four ounces of pus*, without fully emptying the cyst—a quantity almost unparalleled in the history of hepatic abscess.

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Prior to the operation, the liver reached from the third intercostal space to within one and a half inches of the crest of the illium. The heart was pressed far out of its normal position, and the right lung was collapsed and forced into the apex of the cavity of the right side of the thorax.

This was the last time the abscess was opened. For a few days the patient enjoyed comparative ease, yet the drain on the system was more than it could bear. The abscess soon refilled, and there was a return of the dyspnœa, hepatodynia, anorexia, hectic, colliquative perspiration, œdemia of the lower extremities, and great prostration. The abdomen enlarged, and there was increased tenderness on pressure, but less tympanitis. The patient became extremely feeble, pulse very rapid and small, the extremities cold, and finally he died from exhaustion and peritonitis, at 5 o'clock and 30 minutes a. m., on the 20th of June, 1872, having had removed from the liver *four hundred and eighteen ounces*, or three and a half gallons, of pus, in five operations, all performed between the 15th of December, 1871, and the 3rd of June, 1872. In addition to this immense quantity, as much more must have escaped by the bowel, when the abscess was opening spontaneously, besides a vast quantity found in the abscess and abdominal cavity at the autopsy.

AUTOPSY.

At half-past five in the afternoon, twelve hours after death, the writer, aided by Profs. Eve and Maddin, made a *post mortem* examination. The body was very much emaciated, and the right hypochondriac region discolored by repeated application of tinct. iod., applied during life; rigor mortis not well marked; and there was hypostatic congestion of the posterior surface of the body. The liver reached as high as the third intercostal space (this was the superior limit of dullness before the last operation), and the right lung was wholly impervious to air, and compressed into a bulk not exceeding the size of a man's hand, and occupied the normal position of its apex, just beneath and behind the clavicle. The diaphragm was ex-

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tremely thin, as if it had been attenuated by absorption, set up from long-continued pressure. The left lobe of the liver was enlarged to three or four times its normal dimensions, and a microscopical examination failed to discover anything abnormal in its minute structure. The enlargement was simply an hypertrophy, to compensate for the extensive disintegration that had taken place in the right lobe of the liver.

The right lobe had been converted into an immense pyogenic cyst, filling the right side of the abdomen, from midway between the crest of the illium and inferior border of the lower rib, and the third intercostal space. The superior portion of the cyst wall, corresponding with the concavity of the diaphragm, was extremely thin and attenuated, not exceeding an eighth to three-sixteenths of an inch in thickness, and was at several points perforated by ulceration; and to such a degree had the liver tissue been destroyed, that scarcely any part of the cyst's wall, exceeded an inch in thickness. Portions of the cyst's wall, examined mycroscopically, failed to present the characteristics of normal liver tissue. The acini were scarcely distinguishable; very few of them could be made out at all, and these were cloudy and granular; and between them was effused a fine granular substance; and in other parts, where the wall was most discolored and softened, not a trace of liver cell could be found—they had wholly disappeared, and were replaced with a finely granular detritis, the same as existed between the acini in other portions of the wall, where they were yet distinguishable.

The abscess cavity was lined with a pyogenic membrane, of firm consistence, with the exception of its superior portion; in this direction the cyst was less perfectly defined, and here shreds of partly disintegrated tissue hung suspended into the abscess cavity. It was at this point perforations of the cyst's wall had taken place.

Adhesions of greater or less density existed between the liver and the surrounding tissue. Laterally and posteriorly, it was agglutinated to the abdominal walls; inferiorly, to the duodenum, stomach, and colon; superiorly, to the diaphragm;

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but here the agglutination was less general and complete than in other portions of the gland, and it is highly probable that pus escaped into the abdominal cavity at this point; yet this could only have occurred a short time before death, and there is no doubt latent peritonitis existed several weeks prior to this event; therefore the escape of pus in the abdomen cannot be considered as the starting point of the peritoneal inflammation; it probably originated in extension of the morbid process through continuity of tissue; the hepatic peritoneum being the point of departure.

As above stated, the abdominal cavity was filled with creamy pus, differing materially in its appearance from that found in the abscess. The peritoneum was everywhere inflamed, and covered with a dense organized fibrous deposit, that agglutenated all the abdominal viscera together into one mass.

The spleen was enlarged, very vascular, and easily broken down.

The pericardium contained an ounce of limpid serum; its lining membrane was white and glistening.

The heart was natural in size and structure, only pushed, by the enlarged liver, out of its normal position.

The cranium and vertebral column were not examined.

[TO BE CONTINUED IN THE NEXT NUMBER.]

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REPORT OF A CASE OF LITHOTOMY.

BY J. A. STINSON, M. D., JACKSONPORT, ARKANSAS.

On the 26th of June, 1872, I was requested to see Thomas Drury McMinn, aged 12 years, in consultation with Dr. Bowles, who had previously examined the patient, and was convinced that it was a case of "stone in the bladder."

We found the patient suffering severely; haggard and dejected, with impaired digestion, and presenting all the outward characteristics of struma, with a highly irritable condition of the mucous surfaces of the urethra and bladder, rendering it impossible to introduce the sound until after the administration of chloroform to complete anæsthesia.

The history of the case, as far as I could learn, was that the boy had been troubled for several years with symptoms of renal, vesical, and urethral disease, of a paroxysmal character, and had been treated, at different times, for gravel, stricture, &c., without benefit, until his sufferings had become so severe and so incessant, that he was anxious to submit to any operation that would promise any degree of relief.

Our patient being fully under the influence of chloroform, I introduced a sound, and immediately detected a stone of considerable size, occupying a position just behind the prostate gland, confirming the diagnosis of Dr. Bowles. We, without hesitation, decided upon lithotomy, as the only hope of relief for our patient, and at the urgent request of the little sufferer and his friends, I agreed to operate.

After a few days' constitutional treatment, on the day appointed (July 3rd), after the necessary local preparations, with the assistance of Dr. Bowles and Mr. Crawford West, medical student, I performed the usual lateral operation, and, without

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difficulty, a stone one and a half inches long, one and one-sixth inches wide, and one inch thick, weighing over six drachms, was extracted, showing a fine tuberculated surface, yellowish color, and very hard.

In thirty minutes after the commencement of the first incision, the patient was removed to bed, having lost less than one ounce of blood, reaction coming on promptly, but not excessive, the urine passing entirely by the urethra on the eighth day, and the wound healed, the patient attending school on the eighteenth day after the operation.

REMARKS.

In this (my first) operation for stone in the bladder, feeling the responsibility of the task before me, my great desire to succeed led me to adopt the cautious plan suggested by Holmes (*"Surgical Diseases of Infancy and Childhood,"*) in making the external, or first incisions. His exceptions to the usual manner directed by surgical writers, is in the exercise of more caution—taking more time—not going so deep into the perineum at once, but carefully cutting through the tissues, "feeling, from time to time, for the staff."

Now, when no emergency presses for the hasty completion of the operation, as in all cases when the anæsthetics can be safely administered, I think that these suggestions cannot be too highly appreciated; for, by observing this plan, we can more certainly avoid wounding important arteries, causing troublesome hemorrhage, or cutting into the rectum, an accident that would leave the patient in a lamentable mutilated condition, probably for life.

Mr. Coulson (St. Mary's Hospital, London,) gives us some advice in regard to the first incision, which I think is correct, and worthy of consideration. He says that the first incision should be made "rather low," for two reasons; first, he more easily avoided the bulb; second, that the upper part of the external incision, when high, was of no use to the operator, and was often slow to heal.

Surgical writers very properly caution us against cutting

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entirely through the prostate gland. Liston and others say that the neck of the bladder may be dilated without incising the prostate gland, and, from my experience in the dissecting-room, I am satisfied that this can be done, but not in all cases sufficient to allow the extraction of stone of any considerable size; consequently, I am not prepared to accept the opinion of Mr. Tevan, who stated, at a late meeting of the British Medical Association, that "there was no such thing as dilatation of the prostate gland,"—that "it could be torn, but not dilated."

In this operation, I did as Martineau used to do—made the opening in the bladder very small, and with my finger dilated the aperture, until it had attained sufficient size to allow the forceps to be introduced and carried to different parts of the bladder.

With regard to instruments, I prefer a staff with the groove on the convex side, and rather small; I cannot see the necessity of having it large enough to fill up the urethra, as recommended by some, for if properly and firmly held, a small staff will answer as well—sometimes better than a large one, being less in the way; good light forceps, with fenestra, and a common scalpel. I have used the fearful-looking instruments, the double lithotomy cache, and the cutting gorget, on the subject, and experienced surgeons may and have used them with great success on the patient; but I would advise those who expect to be called upon to operate for stone in the bladder, to prepare themselves, by careful study of the anatomy of the parts, to perform the operation of lithotomy with almost any kind of knife. He that does not feel his ability to do this, had better leave the patient to other hands.

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Selected.

THE CURRENT MATERIA MEDICA.

At a stated meeting of the New York Academy of Medicine, held on the 20th of June, 1872, Dr. E. R. Squibb made the following remarks on "The Current Materia Medica":

Materia medica should be thoroughly studied in connection with therapeutics, and the student should never be suffered to graduate without paying particular attention to this branch of the curriculum. There is a tendency among some to almost ignore the materia medica, which is all wrong; it should be studied up to the times. Take, for instance, *hydrate of chloral*, which was first fully investigated and then applied to practical use. Persons are apt to use a remedy and then extol it in medical text-books and journals, without giving it a fair trial, thus creating a fashion in medicine. True progress is entirely different from fashion in medicine.

In regard to the subject of *anæsthetics*, and the mortality from their use, he has not, in the course of his extensive reading of home and foreign journals, seen a case of death in this country, and only two or three abroad, during the year. This is accounted for by the little use of chloroform, and the predominance of ether; and the day is coming when the former will be confined only to the branch to which it belongs—the obstetrical.

Bromide of potassium is more within the control of the profession than it was, and has taken its proper place in the materia medica. Many times it is given in too small doses,

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and no good effect is produced. The doses should be large enough to get up bromism; sometimes fifteen or twenty grains will do it, but in his experience forty, fifty, or sixty grain doses are called for; as a hypnotic, twenty-five grain doses are essential. He recollected a remark of Prof. Van Buren, that in order to get iodinism he gave iodide of potassium in sufficient doses; as high, sometimes, as one-ounce doses. The same rule is applicable to the administration of bromide of potassium.

Alkaloids, or Active Principle of Drugs.—No one expects to get from the salts of morphia that relief as from pure opium itself—although one grain of morphia equals six grains of opium. He believes that good opium will be the standard of the profession after all. The chemical processes in use for abstracting the alkaloids deteriorate the anodyne properties, and are destructive to the anodynes of our fathers. If practitioners were better satisfied to use the pure original anodynes, without being tortured, the results would be more satisfactory. It has been a great fashion to have fine-looking white alkaloids, which are made at the expense of medicinal qualities; for every time they are bleached by the chemist a portion of the valuable property is lost.

Another subject of importance is the *Dietary of the Sick.*—The various extracts of meat sold at the stores are of little value; there is not one of them, which is advertised, which will bear out the remark of Dr. Christison, that "they arrest waste, but do not keep up the supply." His impression is, that there is not as much against the use of solid food or aliment in disease as has been said against it. The stomach is not a chemical laboratory, or "a kitchen for cooking food," as Abernethy wisely remarked. Food should not be subjected to the ordeal of chemists, as the fashion is.

Among the articles that have been introduced in the dietary department, and has taken a firm stand in the materia medica, is *pepsine.* Generally, however, patients have been in the habit of taking starch rather than pepsine. Once get up a reputation concerning a certain variety of this agent, the ma-

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nufacturer has a good start for making money. Some specimens examined were good and others were bad. The name of the maker is no guarantee, as it may be good at one time and poor at another. While the proprietor is looking after the money column, the manufacture is entrusted to another. The fresh supply of pigs' stomachs must come from the Western pork-markets.

The pancreatic emulsions and preparations of bismuth and pepsine, so fashionable now, cannot be recommended: bismuth and pepsine cannot exist together. Those fashionable mixtures of beef and iron—as Vinum cibi, Vinum cibi et ferri cum cinchona, etc.—are gross frauds; only money is in them. Hardly any cod-liver oil will pass muster, except it is tasteless; and his impression is that many of these preparations are not cod-liver oil at all, only oil made up for the market. Good oils should neither be too dark nor too light, but of a medium color. The dark varieties are made of livers in a state of decomposition. There are good cod-liver oils in market which come from Norway and Newfoundland. The reason that the Norwegian oil is less rancid than others is, because it is never made at a less temperature than fifty degrees; consequently decomposition is avoided. Oil, when in use, should be kept in a cool place, as a refrigerator, and after each dose is given, the glass should be thoroughly washed. Small pieces of ice put in the doses of disagreeable substances, like cod-liver oil, renders the agent almost tasteless. Those physicians who eschew the fashionable remedies take to the syrups, such as Aiken's syrup, etc. The lacto-phosphate of iron is based on fallacies like the others; but it is very taking, and is advocated by Hosford and others. Physicians are anxious to get solutions of phosphorus into the stomach, but before it gets there it becomes oxidized.

Another popular fallacy of the day is the use of sugar-coated pills, or medical confectionery. Coroners have found these pills, after death, in the stomach and intestines, undissolved. Medicines should be given in such a shape that they will be quickly dissolved. It is not an easy matter to get the hard

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coat off the pills. Glycerine should be used in compounding pills, to render them soft. Pills made in this way are easily dissolved in the stomach. He has been astonished that Blancard's pill has been so useful as has been stated—it being covered with a metallic coat.

Medicines in capsules are not to be advocated—they being not easily dissolved.

The use of various forms of divided medicines, particularly "The Divided Medicine Co.'s" preparations, is another fallacy. It is nothing new, but an old way of preparing medicines. This way of dosing might be good if the physician would put the medicine up, but to purchase these preparations of companies is dangerous pharmacy.

Rhubarb in squares, covered with powder, is not desirable. Physicians should get the Chinese rhubarb, in solid state, and then they know what it is.

Disinfectants, like chloralum or chloride of aluminium, are fashionable agents. The sulphate of aluminium is better than the latter, but it is old; so, to popularize it, Prof. Gamgee took the chloride. To improve it in this country we have taken the name of bromo-chloralum. Wastes of chemical manufactures are to be the source of disinfectants for health-boards. Copperas, or sulphate of iron, and carbolic acid, are all that can be desired.

Cinchona barks, from India, will probably give us all that can be dispensed. Moss planted on the bark improves the quality—called mossine in that country.

Chloral received, about a year ago, a decided check, on account of the number of deaths reported from its use; it is a potent agent, and has taken a very proper place in the materia medica.

Cundurango, which received its aid from the State Department at Washington, D. C., has pretty much gone out. That Department deserves the reprobation of the physicians of this country. Reports have come back to the discredit of its use.

Nitrite of amyl, introduced by the foreign physicians, and first written about by Dr. Richardson, of London, is a useful

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remedy. Cases of hemicrania, spasmodic asthma, etc., have been relieved by its inhalation. It is supposed to paralyze the nervous system of the arterioles; from sixty-five to seventy beats may be added in a few seconds by its use. The circulation resumes its usual tone in a few minutes, and the effect of the remedy passes off.

Xylol has now degenerated into a prevention of smallpox, and it is very hard to place a value upon it.

An article which has been recently introduced from Germany—*Rhamnus frangula*—seems to stand between rhubarb and senna, and is useful in constipation. The tincture has been prepared at the instance of Dr. Gray, of Utica, and is a good preparation; but it is better chewed; a few pieces chewed during the day will overcome constipation.—*New York Medical Record,* Aug. 1, 1872.

A CASE OF FATAL NARCOTISM

IN A CHILD FOURTEEN DAYS OLD, PROBABLY INDUCED BY A DOSE OF CHLORAL AND MORPHIA ADMINISTERED TO THE MOTHER.

BY WILLIAM H. CAMPBELL, M. D., HARV.

Mrs. W——, aged 16 years, was delivered, on the 13th of June, of a fine healthy boy, weighing ten pounds.

On the evening of the 26th I was called to see the mother, and found her complaining of severe pain in the left iliac region, and ordered an enema of soap and water, which produced free dejections, and relieved the pain. But on the next day, the patient being very "nervous," to relieve the agitation and distress I ordered fifteen grains of chloral hydrate and a

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fourth of a grain of sulphate of morphine in solution, with directions to repeat if necessary. She took one dose, only, and was soon relieved. About three-quarters of an hour after taking the dose (about a quarter to nine in the morning), she nursed her child, who, to all appearances, was perfectly well at the time. But soon afterwards he became very quiet, went to sleep, and was unnoticed until 11 o'clock. At that time he was observed to be breathing badly, and almost immediately became convulsed.

I saw him about 2½ p. m., at which time the breathing was slow and sighing, being at times entirely suspended for many seconds. The cardiac sounds were tardy and irregular, and the pulse almost imperceptible. The skin was cool. The pupils were contracted to mere points.

I remained with him an hour or more, during which time the pulse ceased at the wrist, the breathing became suspended, and the heart's action, becoming slower and slower, at last apparently ceased.

Artificial respiration was resorted to, and was partially successful; even the pulse was, for a considerable time, quite perceptible at the wrist.

I ordered applications of heat externally, and caused him to be continually roused from his tendency to slumber.

For a time, the heart and lungs were kept at work, but the coma gradually deepened, and he died at 10½ p. m., about thirteen hours after the nursing of the supposed poisonous milk.

Strict inquiry was made, and no other source of poisoning could be discovered. Certain it is that he had the symptoms I have before observed in little children who had been poisoned by opium.

We know the effect on nursing children of drugs taken by the mother—cathartics, for instance; and I have seen infants made very drowsy from opiates so administered; but I can hardly believe that one-fourth of a grain of morphine, taken by this mother, could have produced such a deadly effect upon the child.

Still, as no other cause of the symptoms and death can be

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discovered, may it not be possible that the chloral hydrate rendered the morphine more dangerous than it would have been by itself.

Any observations on the effects of chloral hydrate on very young or nursing children, would, in the present imperfect knowledge on the subject, be an useful addition to medical science. In this view the foregoing case is put on record.—*Medical and Surgical Journal.*

DR. WHATELY'S AND SYDNEY SMITH'S REMEDIES.

After ages of experiment and experience, the art of curing is still such an uncertain art that thousands might say, as the poor invalid said, "I never took a remedy, but I've had lots of physic." Dr. Whately could have said just the contrary. He did not take lots of physic, but had a remedy, nevertheless, that stood him in good stead at all times and seasons.

A gentleman making an evening call at Redesdale, when the snow lay two feet thick upon the ground, was much scandalized at beholding an old man in shirt-sleeves hard at work felling a tree, while the sleet drifted pitilessly in his wrinkled face. Upon expressing his surprise that the Archbishop should let an old laborer work in such fashion, he was astonished to learn that the poor fellow exciting his wrathful pity was the Archbishop himself, getting rid of a headache in his usual way, which was to throw off his coat, lay hold of an axe, and rush out of doors, and belabor some stout old trunk till he found himself perspiring freely; when down went the axe, and off went Dr. Whately, as hard as he could tear, to his

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bed-room, to wrap himself up in his newest blankets, go to sleep, and arise by-and-bye, "as fresh as a four-year-old."

Sydney Smith prepared for all eventualities by devoting one side of a room to a collection of medicines, on the efficacy of which he plumed himself not a little. "There's the Gentle-joy, a pleasure to take it; the Bull-dog, for more serious cases; Peter's Puke and Heart's Delight—the comfort of all the old women in the village; Rub-a-dub, a capital embrocation; Dead-stop settles the matter at once; and Up-with-it-then needs no explanation. This is the house to be ill in; every-body who comes here is expected to take a little of something. I consider it a delicate compliment when my guests have a slight illness. We have contrivances for every-thing. If you have a stiff neck or a swelled face, here is this sweet case of tin, filled with hot water, and covered with flannel, to put round your neck, and you are well directly. Likewise, a patent tin shoulder, in case of rheumatism. There you see a stomach-tin, the greatest comfort in life; and, lastly, here is a tin slipper, to be filled with hot water, which you can sit with in the drawing-room should you come in chilled, without wetting your feet."

Sydney Smith had almost as much faith in hot water as Burke, only he was for its external use; some of his contrivances might certainly be generally adopted with advantage.

Scott's Ashestiel blacksmith, who, upon the strength of a little veterinary skill, set up for a doctor of human kind in a small English town, was a man of few remedies. As he told Sir Walter, his practice was very sure, and perfectly orthodox, for he depended entirely on "twa simples."

"And what may they be?" asked Scott, with some curiosity.

"I'll tell your honor," said Lundie; "my twa simples are just laudamy and calamy!"

"Simples with a vengeance!" exclaimed the poet. "But do you never happen to kill some of your patients, John?"

"Kill? Ou, ay, maybe sae! Whiles they die, and whiles no; but it's the will o' Providence. Onyhow, your honor, it wad be lang before it makes up for Flodden!"

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That last touch went straight to Scott's heart, we may be sure. Johnnie Lundie was not quite so frank with the unlucky victims of his orthodox practice; frankness with them would have been unprofessional.

It would, perhaps, be a change for the better, if European doctors could imitate the plain-speaking Chinaman, Li Po Sai, who, when called in by a Californian gentleman, after the usual examination, said, "I think you too much dance, too much eat, too much goot round. If you dance, you no get better; too much eating no good; too much gooting round no good. Good-by!"

Dared our medical advisers be as honest as our Chinese brother, drugs would be at a discount indeed; but then it is just possible the registrar-general might be able to show a cleaner bill of health.—*Medical Times.*

THE TREATMENT OF SYPHILIS.

BY M. P. RICORD, PARIS.

I MUST thank you very much for the reception you have accorded to me, and I am deeply gratified at finding that my name and reputation are known to you. I have not prepared anything to say, and I did not intend to speak; but Mr. Acton caught me, and has forced me to speak. It is a trick. I came here to listen, and not to speak—to learn and not to teach; but, if I am to speak, it will be little, after what Mr. Acton has said; for he has entirely given my views on the phases of syphilis, on the peculiarity of symptoms, and on the manner of treatment.

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There is one question which comes before the medical man very frequently: Can syphilis be cured radically? That is the question which we will consider. There is an immense quantity of venereal disease cured—clap, swelling of the glands, soft chancres, warts—all these "accidents," not belonging to syphilis, and not associated with secondary symptoms, being radically cured. Since these have been distinguished from real syphilis, there have been great differences in the treatment of them, and they have been radically cured.

Doubts have been raised whether real syphilis can be radically cured, and those doubts are not new. Mercurialis thought that it was liable, even after the lapse of years, to break out again; and the doubts remain in the minds of many whether it can be cured radically or whether it can be cured only temporarily. Well, that doubt may remain until I establish before you that the law regarding syphilis is the same as the law regarding the small-pox, measles, and such like. You can have at the one time only one small-pox, only one cow-pox; and as, just so long as the cow-pox influences the system, you cannot have another small-pox or another cow-pox, so in syphilis; for, as long as the patient is suffering under the syphilitic diathesis arising from an indurated chancre, he cannot have another indurated chancre. The application of this law is that, while a man is suffering under the effects of secondary symptoms, he cannot have a chancre of an indurated character; so that if you want to know whether the system of a man is altogether free from syphilis, you can do so by inoculating him with an indurated chancre; if it takes, he was free; if not, he was insusceptible. That is a great point to be reached in the science of medicine. I say, and say distinctly, that syphilis can be radically cured.

Now as to the case of syphilis in the first stage—the primary sore. You have first to find if this be really the hardened chancre, and it comes with the swelling of the glands; but with it the glands never suppurate. I at once institute the mercurial treatment. Now, there is one point here upon which there is a difference of opinion, for some think that you cannot

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prevent the secondary symptoms; but I say that if the treatment be well done and soon done—and this is most important—you can prevent the first bursting out of the secondary symptoms. Why it is not prevented is, that the treatment is applied too late in the first instance, and the secondary often come before the treatment of the primary is commenced. But if you make the treatment of the primary early and effective, the secondary will not appear; I can give you warrant for that. The best treatment for the secondary symptoms is the mercurial, and it must be continued and continuous. In Germany, and in other places as well, the treatment of the secondary symptoms is not continued long enough. You should choose a treatment which does no harm to the constitution, and continue it for five or six months, and you will have very few cases of relapse; and after the mercurial treatment is finished, go on for another six months with iodine. When a person comes to me, I tell him that he will have to continue under treatment for twelve months. If he will, he will; but if not, then I at once say "good-bye."

But then, you know, there are complications. The treatment I have given you is for syphilis arising in a person who is otherwise healthy, and there is then but one enemy to fight against. But in other cases you may have, in addition, scrofula, or an otherwise bad constitution. Well, then the case is not the same; for many of these constitutional disturbances are interfered with by the syphilitic treatment. In many of these cases the syphilis is the second thing to look at, and you must begin with the constitutional disease first; you must attack the strongest enemy first, and he sometimes waits until you come to him before he opens his attack. Then you must come on gradually with your syphilitic treatment; and that which I prefer in complicated cases is iodide of mercury, which causes little diarrhœa. One capital treatment is that of rubbing in—it is easy and effective. But there are cases in which the rubbing cannot be employed.

In the next stage, I employ iodide of potassium. I use large doses of this, up to 60, 70, 80, and 100 grains a day, and

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even more. I have made experiments with this; and I have found that, half an hour after the dose has been given, it has passed through the urethra; and it is, in reality, a sort of broom to the blood. The supply must be kept up.

In secondaries, a treatment partially of this iodide and of mercury has its advantages. I have had the potassium stop doing good, and I have gone back to the mercury with good results. That is what Mr. Acton has said, and I quite agree with him.

When syphilis has lasted a long time, and has had great effect upon the constitution, it somehow disappears, and leaves the patient suffering from a complication of diseases which may have been existing before. Well, then you must stop all syphilitic treatment, and repair the deterioration of the blood by iron and bark.

Mr. Acton spoke about the use of bromide of potassium; and I agree with him in its use, for it is a splendid remedy for a complication of syphilis in some cases—in syphilitic diseases of the brain and nervous system; but you cannot depend upon it as an anti-syphilitic remedy.

Now I would impress upon you that you can tell your patients that this terrible disease can be radically cured if they have the courage sufficient to go through the treatment, and their physician have the courage to go through it with them. I again thank you for the cordial reception you have given me.—*British Medical Journal.*

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THE PERMANENCE OF SYPHILIS.

Dr. Fournier, as quoted in the New York *Medical Journal*, says: "How shall we reply to a patient who, at his last visit, puts the following question to you, which you may be sure he will do: 'Now, doctor, am I finally rid of this disease? Do you think that I am radically cured?'"

To this you must reply as you think, and as science warrants you to think and to hope. Now, what you really think is that your patient has every chance of being free from syphilis now and forever. You are, in a moral point of view, warranted in saying this.

But you also think that, in spite of your long and active course of treatment, this patient might be exposed, at some future day, to new and later manifestations. For, unfortunately, there is no sign which permits us to *affirm a cure in syphilis*, for it is, as M. Ricord says, "neither the dose, nor the pharmaceutic preparation, nor the duration of the treatment, which confers an absolute immunity, or which can guarantee the radical extinction of syphilis." It is necessary to say this to your patients.

We may promise health or a cure to a person dying either of phthisis or cancer, perhaps, for that is a pious lie, and is a consolation which, in our helplessness, we owe to our unhappy patient, and which it would be cruel to refuse; but to a subject in full health, who enjoys all his faculties, and who, moreover, we are almost warranted in believing to be forever rid of his disease, we owe the truth, and that only, and it is for his benefit that he should know the truth.

Should a syphilitic manifestation develop upon such a patient, say ten, fifteen, thirty, or forty years after contagion, it is possible that it would not call to his mind the remembrance

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of a disease a long time vanished and almost forgotten, and that the physician, not being aware of his syphilitic history, might not recognize the syphilitic character of the lesions, more especially as these later lesions are far from presenting a typical syphilitic appearance. This may be a lesion of a viscus, a tumor in the brain, a sclerosis of the cord, an amaurosis, or it may be a hemiplegia, or a paraplegia.

Now, in the eyes of a layman, what connection could be associated between this manifestation and an old sin of youth, past and gone, and expiated years ago? What is the necessity of making a full confession to the physician, and of reviving such compromising reminiscences? The result would be, that the patient would say nothing of his previous syphilitic history, and the physician, not being informed, would run the risk of mistaking the nature of the trouble. In this case, the lesion not being understood, it is not treated with the only remedy which is beneficial for it; therefore it persists, and follows its normal evolution, and may result in a grave or fatal termination, when otherwise it might have had every chance of being cured, if it had been traced to its true origin and treated by its specific. You may be certain of the fact that a number of persons, having tertiary syphilis, have become afflicted with incurable infirmities, or even have died, simply from the fact that a late syphilitic lesion has not been recognized and treated as it should have been.

Now, it is necessary to warn your patients against this possible contingency. The possibility of tertiary lesions manifesting themselves in the future makes it of importance that our patients should be fully and clearly made aware of their true state when we dismiss them as cured. Never forget this when one of your patients, at his last visit, shall put this serious question to you: "Am I cured?" Do not neglect to tell him what you think, and, as an adieu, give him this salutary but very essential advice:

"Yes, I think you are cured. I think science will warrant me in saying that. But whatever may happen to you in the future, whatever disturbances you may have to your health,

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remember your old disease. Tell your physician of it. Do not, at any hazard, fail to acquaint him of your syphilis. Tell him plainly, ten times rather than once, that you have had syphilis in earlier days. It is probable that this information may be of no service to him, but it may happen that it is very important for him, and for you especially, for upon it your cure, and perhaps your life, may depend."—*Medical and Surgical Reporter.*

PROTECTIVE POWER OF VACCINATION.

BY REV. SAMUEL HAUGHTON, M. D., D. C. L.

[The enemies of vaccination may ponder with advantage over the following facts and figures laid before the British Medical Association, at its late meeting, by the Rev. Samuel Haughton, M. D., D. C. L.]:

When I come to England, I am astonished to find intelligent persons in numbers who, for some reason, come forward publicly to oppose the process of vaccination. Some of these people express a strong doubt—an honest doubt—whether the mortality from small-pox is really as fearful as the doctors say. To get a proper basis of calculations as to the mortality from small-pox among unvaccinated persons, we must go back to the records of past generations in this and other countries; and we find this astonishing result—that from 60 to 70 in every 100 persons attacked by small-pox must die if not vaccinated.

Some people have the idea that this is a bugaboo of the doctors, and that they need not necessarily die if not vaccinated. Of course it is impossible now to get the experience of an immense number of persons who have not been vaccinated, to

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give them the small-pox, and see how many would die. This experiment could not be easily carried out; therefore I adopted another method. I took it for granted that the writers and records of the close of the last century were correct. The average which they gave was that 66 per cent. of every class—men, women, and children—must die if they had got the small-pox, and were not vaccinated; whereas, of those who were attacked after being well vaccinated, the number of deaths was only 6.6 per cent. This reduction of the mortality from 66 to between 6 and 7 per cent. represents what vaccination has done. The value of vaccination is, therefore, established beyond the possibility of a doubt, and I think that this is a subject on which the medical profession should speak out. Should not Birmingham, with her literary men and newspapers, lead the public on this great question?

I wrote to my friend Dr. Hayden, of the Mater Misericordiæ Hospital, in Dublin, to send me the total number of small-pox cases treated there, and of the deaths; and I undertook, from these figures, to calculate the number of those who were vaccinated and those who were not. This forms a very simple problem in mathematics, of which I will not trouble you with more than the results attained. From the figures sent me I calculated, though I had never seen a patient, that 120 of the cases treated at the hospital had not been vaccinated. I wrote to tell Dr. Hayden this, and he wrote back to say that the number recorded as known to be unvaccinated was 119.

Since I have come to Birmingham, Mr. Woolley has kindly placed at my disposal all the information he possessed, and I hereby beg to tender him my warmest thanks for his courtesy. Although Birmingham has suffered what I cannot but regard as a most contemptible epidemic, the facts are strikingly illustrative of what, to my mind, is the truth of the principle which I am placing before you.

Since the 18th of November, 1871, there have been 1911 cases of small-pox, of which 262 have died. I leave out the cases remaining under treatment. I calculated from those

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figures that 230 persons in Birmingham who had been attacked with the disease had never been vaccinated. I found in Mr. Woolley's returns that the certainly non-vaccinated were 209, while the doubtful cases numbered 44. Well, it was fair in such a case, to split the difference and call it 22, and, as that suited my theory very well, I adopted it; and when I added them to the 209, it made 231, which was only one above my calculation. It is like the trick of a conjurer, walking into the town, asking the number of small-pox cases and deaths, never having seen the patients, and yet telling the people of the town how many were vaccinated and how many were not.

Dr. Trench tells me that 1616 cases were treated in the Liverpool hospitals; the deaths were 375; from that I calculated that the non-vaccinated cases numbered 451. The number actually recorded as non-vaccinated was 432, being 19 less; but I am perfectly certain that to those should be added several of those properly set down in the reports as doubtful.

This opens up a problem highly interesting to the profession of medicine. As the mathematician in his closet can direct the astronomer in what part of the heavens and when to look for certain planets, so the progress of science and medicine can tell with certainty when and where certain districts will be attacked with epidemics.

The records of the fearful epidemics and the plagues of the middle ages have perished; the poor have perished, with no man to regard them. Even the writings of Defoe may be searched in vain for any statistics of the great plague which would satisfy the demands of modern medical science. But, by examining into the records of our own times, we shall be able to read back the history of the epidemics of the past, the number and per centages of the mortality of those who suffered, who lie forgotten in their graves, and whose history no one has recorded.—*British Medical Journal*, Aug. 17, 1872.

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Extracts from Home and Foreign Journals.

SURGICAL.

COLLATED BY PAUL F. EVE, M. D.

MIXED VAPORS FOR ANÆSTHESIA.

Dr. J. D. Davis (*Medical Record*), in commenting upon this subject, remarks that the mixture recommended by the Committee on Anæsthetics, of the American Medical Association, deserves to be more universally known and used, its advantages being—the small quantity required; the rapidity of its action; the shortness of the stage of excitement (it often being wanting entirely); the absence of distressing after effects; its comparative safety over chloroform; being compounded in definite proportions, it can be scientifically administered; the pungent, stifling odor of the ether and the burning sensation of the chloroform, are to a great extent overcome; the sedadive effects of chloroform are modified by the exciting influence of ether, while to both is added the stimulant alcohol. The mixture is composed of alcohol, one part; chloroform, two parts; and ether, three parts. It is easily remembered by taking the initials in the order of the alphabet; A., C., E., the corresponding number of parts being 1, 2, 3.—*Medical Examiner.*

NITRIC ACID AGAIN.

Professor Patruban (*Memorabilien*, June, 1872), says that this heroic caustic is indicated on account of its rapidity and drying-up of the tissues. It stops all effusion of blood, and

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leaves good scars. He uses it for warts and other protruberances of the skin, as condylomata, epulis, hæmorrhoids, and tumors of the nature of nævus.—*The Doctor.*

SURGICAL TREATMENT OF ANASARCA.

In a severe case of anasarca, Dr. Wolff (*Ber. Klin. Woch.*, No. 141, 1872,) introduced into the skin a number of fine cannulæ, such as are used for subcutaneous injection, and left them there. Through twenty-five cannulæ thus used, twenty quarts of fluid were discharged in three days. The fluid was carried away in elastic tubes into a vessel near the bed. No inflammation of the punctures, nor any other unpleasant results, followed the operation.—*Clinic.*

SURGICAL TREATMENT OF CROUP.

Dr. Daquillon recommends (*Gazette Hebdomadaire*) the following treatment when symptoms of suffocation from croup are imminent: A sponge, after being dipped in pure liquor ammonia, is to be squeezed until no more liquid drops from it, and is then to be passed, by means of a whalebone probang, down the throat. The child should be compelled to inhale the vapor of ammonia as long as it possibly can. The immediate result of this treatment is an abundant secretion from the respiratory mucous membrane and the expectoration of false membrane; the dyspnœa diminishes, the cough is less hollow, and the voice is less muffled. Often, in cases where death seemed imminent, the lives of children have been saved.—*Medical Times.*

TREATMENT OF OBSTINATE PRURITUS.

Mrs. J. G. Brown, resident Physician Illinois Woman's Hospital, (*Medical Examiner*, Aug. 15, 1872,) speaks highly of the sulpho-carbolate of zinc in cases of obstinate pruritus of the vulva. In one particular case the vulva, after being thoroughly bathed with tepid water, was washed twice daily with a solution of the sulpho-carbolate of zinc, containing half a drachm to the ounce of distilled water, the parts being al-

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lowed to dry without wiping. She was much improved at the end of a week. During the second week the application was made once daily, on retiring at night. At the end of the third week the pruritus was wholly relieved.—*Medical Record.*

A POSITIVE SIGN OF DEATH.

In 1870, the Academy of Sciences of Paris offered a prize of twenty thousand francs for some simple and positive sign of death, one which can be applied at any time by non-medical persons, requiring no instruments, and unmistakable in its indications. Of course, a number have been spoken of. The latest, and perhaps the best, is that suggested by Dr. Hugo Magnus, of Breslau, in one of the latest numbers of *Virchow's Archiv.* It is simple, physiological, and conclusive. Everybody knows that when the circulation positively ceases the man is dead. No matter how profound the coma or trance, no matter how death-like the lethargy, some circulation *must* continue, be it ever so sluggishly. When it stops once, resuscitation is impossible. All that one has to do, therefore, is to *tie a string firmly around the finger of the supposed corpse.* If there is the least spark of life left—that is, if the blood circulates at all,—the whole finger, from the string to the tip, will gradually turn a bluish red, from the engorgement of the veins. Nothing else, no post mortem infiltration, can be mistaken for this appearance.

We attribute a great deal of importance to this suggestion, and consider it the most practical and satisfactory of any we have seen.—*Med. and Surg. Reporter.*

[This is not strictly correct. One, may be, has been resuscitated after the circulation has ceased, or stopped.—*E.*]

EPITHELIOMA CURED BY CREASOTE.

Dr. Forne reports, in the *Montpellier Medical,* a case of epithelioma in the upper lip, of about four centimeters in diameter, cured by the topical application of creasote. The treatment was commenced by dipping a brush in pure creasote, and having removed any that might drop, the whole surface of the

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ulcer was lightly but firmly touched with the brush, a certain degree of pressure being used, and the brush retained on the same point a few seconds, so as to insure a thorough application. A piece of lint, moistened in a gummy solution of creasote, was then laid upon the ulcer. The application caused but slight pain. Three days subsequently it was found that the ulcer had not increased. The application was repeated in the same manner, and five times afterwards, at about the same interval. Cicatrization then commenced, and proceeded rapidly, being favored by a dressing of thin paper moistened with a solution of creasote. Entire recovery took place about six weeks after the treatment was commenced.—*Medical and Surgical Reporter.*

ECTROTIC TREATMENT OF SMALL-POX AND SCARLET FEVER.

Dr. Alex. Watson records several cases of these diseases in which the external application of carbolic acid proved of signal service. In one case of small-pox which he saw at the period of the appearance of the papulæ, he ordered enema, and the patient, a girl of eleven, to be sponged all over with tepid carbolic acid soapsuds. On the following day there was every appearance that it was about to be a severe case of confluent small-pox. She was directed to be sponged again with warm carbolic acid soapsuds, and immediately after the whole body to be painted over with the carbolic acid glycerine of the British Pharmacopœia. Some smarting was experienced on the parts that had been scratched, but otherwise only a general glow of warmth. Five grains of Dover's powder were given to allay irritability, after which the patient slept calmly for several hours, and in the evening she was sponged again. No vesicles formed, and in a few days she was convalescent. The atmosphere of the bed-room was in this, and other cases, saturated with the vapor of carbolic acid, by means of sheets hung up in place of doors and windows, and constantly wetted with the solution of the acid.—*Lancet*, July 13, 1872.—*Practitioner* (Baltimore Reprint).

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REMOVING FOREIGN BODIES FROM THE EAR.

The following method for removing foreign bodies from the external auditory meatus is suggested by Dr. Könenberg, of Paris, (*Berlin. Klin. Wöchenschrift,* No. 9, iv. 10, 1872,) and is applicable in those cases in which the ordinary methods of extraction, by means of instruments and the syringe, have proved unavailing. It consists in smearing the presenting surface of the foreign body with some adhesive fluid, which speedily hardens, by the aid of which a sort of handle may be fastened to the body, which may then be readily withdrawn, without causing any pressure upon the walls of the auditory canal. One of the best substances to be employed for this purpose is ordinary *glue,* which should be dissolved in cold water the day before the operation, and then thickened by means of the water-bath immediately before being used. The glue is applied by means of a small brush, the head of the patient being allowed to rest upon a pillow. When the foreign body is well smeared, the end of the wooden brush-handle may be inserted into the auditory meatus, and placed in contact with the body. At the end of three-quarters of an hour a firm union generally takes place, and the offending substance can be easily extracted. It is essential that the surface of the body upon which the glue is smeared should be perfectly dry. If the surface is made moist by the existence of some discharge, it may possibly be kept dry during the operation by the introduction of a current of warm air. If it is found impossible to keep it dry, then some other substance must be used to cause adhesion, such, for instance, as plaster of Paris or cement, which are hardened by the mixture of water.

The writer is of the opinion that this so-called adhesive method can be applied in cases where the foreign body has penetrated the tympanum, provided the opening at the point of perforation is sufficiently large to admit of the introduction of a slender splinter of wood, to which the adhesive mixture has been applied, and by the aid of which the foreign substance may be laid hold of and extracted.—*Boston Med. & Sur. Jour.*

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ARSENIC A PREVENTIVE TO HYDROPHOBIA.

Dr. Ernest Guisan, in an inaugural dissertation presented to the Faculty of Berne, states that, though he has arrived at no positive conclusion, he believes that, as in cholera, the germ of the contagion in rabies is formed by one of the lowest fungi. The period of incubation extends, upon the average, over five or six weeks. The poison is then absorbed, spreads itself through the body by means of the circulation, and then multiplies indefinitely, producing, ultimately, irritation of the nervous centres, and especially of the medulla oblongata.

Dr. Guisan then enters into the prophylactic treatment of the disease by means of arsenic, and gives the following clinical observations:

A man was bitten on the 24th of June by a mad dog, in the hand; a girl was bitten at the same time, and shortly after died from hydrophobia. Two days after the accident the man applied to Dr. Guisan's father, who cauterized the wound deeply with potash, and kept the wound open with cantharides. Minute doses of belladonna were given morning and evening up to the 18th of July, when the patient had rigors and pains in the body. From this time up to the 26th of July the symptoms of hydrophobia became gradually more and more expressed, in spite of repeated venesections and the use of calomel and opium. At this date, however, small doses of arseniate of soda were prescribed every four hours (0.003 of a gramme). On the 27th, marked amelioration of the symptoms was observed, which continued till, on the 30th, all danger had passed, and complete recovery took place.

Dr. Guisan gives another case, in which a rabid dog, between the 7th and 9th of June, bit thirteen persons in various towns of the canton of Freiburg. All were recommended to be treated with one-twentieth of a grain of arsenic morning and evening, as a prophylactic measure. Eight submitted to this prophylactic measure, and none were affected. Four declined, or were not allowed, to take the arsenic. Of these four, two remained unaffected, and two died. One began the arsenical

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treatment, but speedily left it off; she was attacked, but at a much later period, and died.

Dr. Guisan not only recommends the internal employment of the arsenic, but that the wound should be dressed with it.—*Correspondenz-Blatt*, Aug. 1, 1872.—*Practitioner*.

COLLODION IN HERPES ZOSTER.

Dr. Wesley M. Carpenter, of Erieville, Madison County, writes:

"I would call the attention of the profession to the use of collodion in this disease. It may have been noticed before this, but I have not happened to see it, if such is the case.

"One of the most distressing symptoms in this disease is the intense stinging, burning, superficial pain, which often accompanies the eruption. I have no reference to the so-called 'characteristic pain,' which may continue a long time after the disappearance of the eruption.

"Great relief may be given from this burning pain by the application of collodion to the surface occupied by the vesicles. This may be done with a feather or camel's-hair brush. The collodion forms a pellicle over the surface of the vesicles, which protects them from the air, and renders them less liable to rupture. It may be applied at any stage of the eruption, and, in most cases, acts like a charm in giving relief to this annoying accompaniment.

"In general, the disease needs no other local treatment."—*Medical Record.*

COAL-OIL AS A DERIVATIVE IN CONGESTION.

D. T. Gilliam, M. D., Nelsonville, Ohio, (*Clinic*, July 20, 1872,) has for some time been in the habit of using this article with success, as a counter-irritant and derivative in many internal congestions and inflammations, and especially in diseases of the throat and air-passages, and in inflammation of the lungs. Its action consists in its steady, even, gradual influence over the circulation. It is not uncertain, like poultices, though more efficacious. His method of using it in congestion

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of the lungs, is to envelop the thorax in woollen cloths saturated with coal-oil, and allowing it to remain a sufficient time. In cases of children, he sometimes envelops the entire body in the saturated flannel cloths, but it is more necessary here to watch its effects, as in one case vesication of a large portion of the surface resulted from its too long continuance, though the vesicles were comparatively painless, and healed rapidly upon being sprinkled with flour.—*Ibid.*

ENUCLEATION OF THE EYE-BALL FOLLOWED BY DEATH.

Dr. Just (*Klin. Monatsbl.*) reports a case of removal of the eye-ball resulting fatally.

The patient, a man of 63, came to consult him about his eye, which was found far advanced with irido-cyclitis, the other ball atrophied as the result of an injury three months previously. Seven days passed, without any unusual symptoms, except a greater amount of suppuration than is usual. On the eighth day the patient began to show some strangeness in conversation, and on the ninth was decidedly confused, using his coat sleeves for stockings, urinating in his room, etc. All the head symptoms increased, and the patient died on the tenth day.

The author remarks that he was aware of Von Græfe's caution about practising enucleation in cases of panophthalmitis, but in this case the question was simply with a bulb already atrophied.

This is but the fifth case recorded of death after enucleation, so, as the author says, if all the cases are recorded, the operation must still be regarded as quite free from danger.—*Clinic.*

SINGULAR CASE OF HEMORRHAGE FROM THE BOWELS.

A rare and important case is reported in the *Bulletin de Therapeutique,* June 30, which throws light on some hitherto inexplicable cases of sudden death from intestinal hemorrhage. A man, 74 years of age, had enjoyed general good health, except a tendency to constipation. One night he was suddenly seized with intestinal hemorrhage, and died in a few hours.

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Only twice, and that about a month before, had he had slight attacks of a similar character.

A careful autopsy disclosed the only lesion to be *erectile tumor*, the size of an almond, in the mucous coat of the duodenum. It was composed merely of an enlargement of the capillary vessels of the part, or so-called angioma. A slight ulceration at its edge had given rise to the hemorrhage which destroyed life.—*Med. and Surg. Reporter.*

INGROWING OF THE TOE-NAIL.

Dr. Finch writes to the *British Medical Journal:* "Neither of the cutting operations is at all necessary for the complete and rapid cure of ingrowing toe-nail. If a small, thin, flat piece of silver plate be bent at one edge into a slight deep groove, and, after the toe has been poulticed twenty-four hours, slipped beneath the edge of the nail, so as to protect the flesh from its pressure, and the rest of the thin plate bent round the side and front of the toe, being kept in position with a small portion of resin plaster passed round the toe, a speedy and almost painless cure will take place, and the patient, after the first day, has the additional advantage of being able to walk. I have followed this method in numerous cases with uniform success.—*Ibid.*

HÆMORRHOIDAL SUPPOSITORY.

Dr. Henry M. Field, Newton, Mass., (*Journal Gynæcological Society,*) recommends this formula for a suppository in hæmorrhoidal cases:

℞—Acid tannic..... gr. v.
Ext. belladonna..... gr. ss-j.
Butyr. cacao..... q. s.

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MEDICAL.

BY W. L. NICHOL, M. D.

ERGOT IN HEADACHE.

D. R. Silver, M. D., of Sidney, Ohio, writes as follows to the *Medical and Surgical Reporter:*

A record of many cases assures me that ergot is better than any other single article of the materia medica in this disease, or symptom of disease. I recommend it to patients who are subject to the malady, thus:

℞—Squibb's fld. ext. ergotæ, gtts. x–xx.

For one dose. To be repeated every half hour until relief is obtained, or four or five doses are taken.

The primary effect of opium is to produce hyperæmia of the brain. To neutralize this action I employ with it fluid extract ergot. The combination has a happy effect in cases in which opium alone would be contra-indicated by the fluxion to the brain.

Let it be understood that I do not regard ergot as a specific for headache. But thousands of people are made miserable once a fortnight or once a month (especially women), who, by the use of the above prescription, may be made, for the time, comfortable.

My experience with ergot in the headache of fevers is limited; but I would expect no good result from it, since the pain is then, probably, produced by the abnormal temperature and *quality* of the blood, instead of being occasioned by fullness of the cranial vessels, as once supposed.

ANTIDOTE FOR ARSENIC.

Prof. Carles found that sugar rendered the arsenite of magnesia soluble, and thus counteracted the desirable reaction of the magnesia. It was also noticed that, with the exception of arsenic, the sugar did increase the antidotal reaction of the

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magnesia. A mixture of 2½ drachms of magnesia, 5 to 6 drachms of sugar, and 3 ounces of boiling water, is represented as being a very good composition of the antidote.—*Medical and Surgical Reporter.*

CALOMEL IN DISEASES OF THE EYE.

A fact not generally mentioned in our works on diseases of the eye, and not very generally known in the profession, I believe, is worthy of notice in reference to the local use of calomel. This remedy is of very great benefit in certain diseases, especially of the cornea, and much used. It should be remembered that it can be placed on the conjunctiva and cornea, not without danger, when the patient is taking the iodide of potash internally. The salts in the tears, and the calomel, often form a caustic sufficiently strong to produce quite a deep and painful eschar.—*Chicago Medical Journal.*

TREATMENT OF GONORRHŒA BY TANNO-GLYCERINE PASTE.

Dr. Tomowitz, K. K. Regiments arzt, Austrian army, reports the successful employment of Schuster's (Aix la Chappelle) tanno-glycerine paste in somewhat different form for syphilis and gonorrhœa. His formula is as follows:

℞—Tannini puri..... 3 ss.
Opii pulverisati ..... gr. iv.
Glycerinæ..... q. s. ut ft. pasa.

Sove 50.60 drops of glycerine are requisite to bring the paste to a proper consistency. A sound, or elastic bougie, is dipped into the paste, warmed over a stove or spirit-lamp, and thus smeared, is introduced into the orificium penis to the fossa navicularis, where it is held for five minutes. This operation is repeated three times a day. In gleet, the catheter or bougie is carried back to the bladder and slowly withdrawn, so as to bring the paste into contact with every surface of the urethra. Even in acute cases, the pain is but very slight.—*Allg. Militaraztl. Zeit.*, Aug. 11, 1872.—*Clinic.*

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SYPHILOMANIA AMONG THE DOCTORS.

In the proceedings of the New York Pathological Society, published in the *Medical Record*, is reported as "Syphilis of the Heart," the case of a syphilitic patient who died suddenly, after four months of heart disease. The heart was found hypertrophied, and the aortic valves "covered with vegetations." On these vegetations the diagnosis of syphilitic disease of the heart was founded. The *Gazette Hebdomadaire* takes exception to the inference, because the valves of the heart are liable to such growths from other causes, vegetations being met with on the aortic valves in persons who have enjoyed good health, and in children and virgins. The *Gazette* admits the occurrence of syphilitic disease of the heart, and of cardiac neuralgia of the same character. But the editor criticises the habit of inferring too much in regard to this class of disease, and demands a more rigid logic in pathological enquiry. The criticism is worth the more, coming from the French school, in which the subject has been investigated in all its bearings, and which has been supposed to accord to syphilis as wide a range at least as sound deduction would justify.

But it is one of the fashions of the day to see syphilis everywhere. A few wandering aches or pains are sufficient to turn the suspicions of some practitioners in this direction; and if the patient should ever have had the slightest touch of infection, in any form, the diagnosis is confirmed beyond a doubt. Even when no such ground of suspicion can be traced, we have known the verdict to be pronounced, greatly to the disgust, and even wrathfulness, of the defendant, who flatters himself, in all good conscience, that his life has been strictly virtuous. In one such case of which we are cognizant, the doctor met the indignant asseveration of innocence on the part of the patient with the assertion that, if innocent himself, he must have contracted the disease from his wife, or inherited it from his father or mother. This philosophic view of the matter drew forth from the insulted party a demonstration which will doubtless deter the doctor from ever again uttering

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a similar opinion, without some better protection than hasty and empirical logic.

We have reason to believe that it is a common habit with a considerable number of respectable practitioners thus to conjure up the demon of syphilis. Perhaps it may serve the place of argument to suggest the term *syphilo-mania* as applicable to this phase of unsound logic. We do not, of course, refer to those miserable charlatans who make it a business to decoy weak-minded people into their toils, by fomenting the idea of syphilis, as they do that of seminal weakness, through anatomical museums and pamphlets and hand-bills, and more especially through those benign guardians of the health, morals, and welfare of society, the newspapers.—*Pacific Medical and Surgical Journal*, Oct. 1872.

DEATH OF PROF. EDWARD PARRISH.

Edward Parrish, late Professor of Materia Medica in the Philadelphia College of Pharmacy, and President of Swarthmore (Friends') College, died on the 9th of September, at Fort Sill, whither he had gone on a friendly mission to the Indians. He was the son of the late Dr. Joseph Parrish, of Philadelphia, and author of the excellent treatise on Pharmacy which bears his name. At the time of his death he was fifty years of age.—*Ibid.*

A GOOD LESSON ON DIAGNOSIS.

In a clinical lecture in the Liverpool Royal Infirmary, reported in the *London Lancet*, Dr. Waters makes the following very sensible remarks:

"It may seem to you an easy matter to make out the nature of a case. A man of experience will put a few leading questions, make, perhaps, only a slight physical examination, and at once pronounce a correct opinion of the existing ailment; and you may imagine that you will readily be able to do the same. But do not be mistaken. This power of rapid diagnosis has been the result of long observation and great painstaking; and you will find even that the man of the most ma-

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tured judgment will often spend a long time over a case—will examine carefully all its details—before he will venture on an opinion of its nature. If you wish to attain to the power of rapid diagnosis—of rapid diagnosis in ordinary cases—you must begin by examining, with the greatest care, every detail of a series of cases which are the best-marked instances of their kind. The study of these will prepare you to understand the varieties and complications which so constantly present themselves at the bed-side."—*Ibid.*

ZINC WATER-TANKS.

Of the unhealthfulness of these for domestic purposes, there would seem to be no doubt. A recent French periodical contains an article by M. Zinrek, who had examined water which had long been kept in such tanks, and who has found that the water dissolves so much the more zinc as it contains more chlorides—such, for example, as the chloride of sodium. The water also takes up larger quantities of zinc in proportion to the length of contact. Boiling does not, however, precipitate the zinc from water charged with the metal. A sample of the former was tried, in which the chlorides were in small proportion, but which had been a long time in a zinc tank; as much as 15 grains of zinc was found in each quart. To prevent this state of things, M. Zinrek advises that the tanks be coated inside with an oil paint, with ochre or asphalt for the base; but no minium, ceruse, or carbonate of zinc, should be used.—*Boston Medical and Surgical Journal.*

ON THE EXHIBITION OF CALOMEL.

The changes which preparations containing calomel undergo by being kept, are discussed by Vulpius, in an article we translate from the *Allgemeine Medicinische Centralzeitung*, March, 1872:

In mixtures of calomel with white sugar, magnesia, or sugar of milk, no signs of corrosive sublimate can be found, even after three months. Traces of sublimate do appear in a mixture of calomel, bicarbonate of soda, and sugar of milk,

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kept an equal time. Decided quantities were present in a mixture of calomel, bicarbonate of soda, and cane sugar, preserved the same period, and exposed to moisture. The last-mentioned is the only preparation which he decides should not be kept on hand for pharmaceutical purposes, but should be freshly mixed when wanted. The occasional change of small portions of calomel into corrosive sublimate, in the stomach or bowels, he does not consider of any serious moment, and calls attention to the opinion lately expressed by Dr. Zeroni, of Manheim, who attributes the cure of a case of cerebro-spinal meningitis by large doses of calomel, to this very change, in some degree.—*Half-Yearly Compendium.—Atlanta Medical and Surgical Journal.*

HYPODERMIC INJECTIONS OF ERGOT IN UTERINE FIBROMA.

Prof. Hildebrandt has treated nine cases of uterine fibroma by hypodermic injections of ergot. His results seem to be of the greatest importance. He used of the watery extract of ergot 3.0 grs., and of water and glycerine 7.5 each. The alcoholic solution causes more pain in the skin. He injected about one drachm daily for several weeks, at the lower part of the abdomen, because he found less irritability there. He covered the little wound with cotton and collodion, at the period of menstruation (bleeding occurred easily), and also after the tenth or fifteenth injection, because the fluid usually ran away. One tumor reaching the navel was removed in fifteen weeks; another, reaching the ribs, was decreased so as to reach only to the navel, and all bad symptoms disappeared. In four cases large decrease and entire relief was noticed. One case did not allow that treatment, because of excessive pain; another one, because of the poisonous action of the drug. In each case the troublesome symptoms, menorrhagia and fluor albus, disappeared.

Baths and operations, or other local treatment, are sometimes not allowable or impossible, therefore a trial with this method is recommended.—*Berlin. Klin. Wochen.—Indiana Journal of Medicine.*

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OPIUM POISONING.

An interesting case of opium poisoning is reported by Dr. Charles G. Smith and H. C. Hand, in the *Philadelphia Medical Times.* The chief points of interest in the case are recapitulated as follows:

1. An ounce and one-half of laudanum had been swallowed, the most of which was absorbed.

2. The hypodermic injection of one-sixteenth of a grain of atropia dilated the pupils widely, but had *no effect whatever* on the pulse, respiration, or color of the skin.

3. The magneto-electric and faradic currents were each found more useful for being intermitted and alternated; benefit was also noted from shifting one pole from over the position of the phrenic nerve to the spinal column.

4. By far the most important remedial measure employed was *artificial respiration;* during three hours it was continuously persevered in, with the constant hope that natural respiration would come to our relief.

* * * * At the close of this time the vital forces—the heart's action particularly—were failing, in spite of the artificial respiration, and it seemed almost certain that this means could preserve life but little longer. Magneto-electricity, with unexpected efficacy, now furnished the stimulus needed to strengthen the heart, and elicit those first evidences of return of life so grateful to his almost hopeless attendants.—*Detroit Review of Medicine and Pharmacy.*

LEAD POISONING,
FOLLOWING THE USE OF A HAIR PREPARATION.

Dr. J. M. Crocker, of Provincetown, contributes to the *Boston Medical Journal* the following case of lead palsy, from using a "hair preparation":

R. W——, aged 55, laborer, was attacked with what appeared to be muscular rheumatism, affecting mainly the deltoid and other muscles of the shoulders, last February. When first visited, he was suffering from pains more or less severe

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for a month or two. Both arms were, in this manner, crippled. Ordered cotton batting to affected parts, lemon-juice and opiates internally. Made quite a rapid recovery.

When seen in March following, he was suffering from an almost complete paralysis of extensor muscles of fingers and hands, with dropping of wrists. He could readily and forcibly grasp, but found difficulty in letting go. No lead lines about gums could be seen. Said he had had several attacks of colic within a few years. The water used for drinking was obtained from a brick well, and stood in a wooden bucket. Ordinary cooking utensils were used in his family. Subsequently, upon inquiry, I discovered that, for fifteen years, he had used a "hair renewer," made by himself, of three tablespoonfuls lac sulphur and two tablespoonfuls sugar of lead to a pint of water. With this he had drenched his hair and scalp as often as once a week.

Under use of iodide of potassium and galvanism he has made a good recovery, the hair-dressing having, of course, been discontinued. The urine was not examined after treatment began. No colic since sugar of lead was stopped.—*Cincinnati Medical News.*

NEW METHOD OF MAKING BEEF-TEA.

In order to meet the daily-felt want of concentrated fluid meat food, a want not supplied by beef-essence, as ordinarily made, Dr. H. C. Wood has invented the following process, and has found in practice that it works well:

Take a thin rump steak of beef, lay it upon a board, and with a case-knife scrape it. In this way a red pulp will be obtained, which contains pretty much everything in the steak, except the fibrous tissue. Mix this red pulp thoroughly with three times its bulk of cold water, stirring until the pulp is completely diffused. Put the whole upon a moderate fire, and allow it to come slowly to a boil, stirring all the time to prevent the "caking" of the pulp. In using this, do not allow the patient to strain it, but stir the settlings thoroughly into

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the fluid. One to three fluid ounces of this may be given at a time.—*New Remedies.*

SEVEN TÆNIÆ IN ONE PATIENT WITHOUT SYMPTOMS.

The following case is reported in the *Journal de Médecine et de Chirurgerie Pratiques*, July, 1872:

The patient, a hospital nurse at Lariboisière, aged 25 years, had been ill for a few days, with general lassitude, with pains in the epigastrium and left chest. There was no morbid manifestation to draw attention to the alimentary canal; and none of his antecedents led to the suspicion that he was infested with intestinal worms. One morning he noticed, in his dejections, flat, ribboned, and white masses, which proved, on examination, to be fragments of a tænia. He was ordered 20 grammes (about five drachms) of kousso, very finely powdered, infused in about eight ounces of boiling water, and allowed to stand over night. He took the whole, powder and all, warmed up and well mixed. In an hour and a half, he experienced a little intestinal commotion, and some colic pains. A dejection soon followed, with considerable masses of interlaced tæniæ. A second dejection, half an hour afterwards, brought away still more. A dose of castor-oil, now given, produced liquid evacuations without further fragments of worms.

On examination of the vermicular mass under water, seven heads of tæniæ were detected, which were also verified by the microscope. The tæniæ, unrolled, measured from one and a half to nine yards in length; or a total, with the other fragments, of about twenty-two yards.

The next day the patient returned to his occupation. On further inquiry, no indications could be discovered, which, if previously known, would have led to a diagnosis. He had never partaken of raw meat, nor often eaten sausages.

The case is remarkable for the number of entozoa, and for the readiness with which they were dislodged. The latter may be due to the fineness of the powdered drug, and the long time allowed for its infusion.—*Boston Medical and Surgical Journal.*

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THE CONTAGION OF SMALL-POX.

Dr. Britton states, as the result of his observation in ninety cases, that it is only the pustule with a depressed centre that propagates the disease. When the pustule is conical it is never contagious. This difference makes the distinction between the "true" and "modified" form of the disease.—*British Medical Journal.*

SCIENCE AND A KIND HEART.

A celebrated physician was called upon recently by a person suffering from rheumatism, who insisted upon his doing something for him. The physician wrote a prescription, and, as the patient went out of the room, said to him, "I wish you would let me know if that does you any good, for I have myself been very much troubled with rheumatism lately."—*The Clinic.*

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Editorials, Reviews, Etc.

DIAGNOSES—A STORY FOR AMATEUR PHYSICIANS, AS WELL AS FOR REGULAR PRACTITIONERS. By DUFF CHILD. Louisville: A. S. Gosnell, 1872.

Our doctor citizens will remember Dr. Child, who cast his lot with us for a while, and whose modesty was only equaled by his sterling merit. Well, he has fixed his residence at Louisville, and has complied with the prayer of the ancient belligerant—has written a book, and a very spicy and readable book it is. A doctor "not o'er thranged wi' wark at hame" or abroad, would find it charming reading—a godsend of a rainy Sunday. But it is not intended for the practitioner only—the amateur and the public at large will find it very interesting. It doubtless is but the forerunner of something more substantial from the talented author, when his facile pen shall have become older and riper. We commend it to our friends. It can be procured from the publisher, A. S. Gosnell, Louisville, Ky.

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REMARKABLE CASE OF HEPATIC ABSCESS.

BY JAS. F. WEEDS, SURGEON U. S. ARMY.

[CONTINUED FROM THE NOVEMBER NUMBER.]

THE frequency with which hepatic abscesses occur, varies greatly in different latitudes, and in different climates. In cold and temperate regions, it is an infrequent disease; while within the tropics—under a vertical sun—it is by no means uncommon; but even here, I believe, its prevalence has been over-rated. There can be no doubt that heat is an active agent in the causation of hepatitis, of which hepatic abscess is a result; but if suppurative hepatitis depended wholly on a

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long-continued elevated temperature, all countries, having the same isothermal lines, should be affected in an equal degree; but observation demonstrates the fallacy of such a conclusion. The European settlers on the west coast of tropical Africa, where the heat is intense and continuous, suffer far less from this disease than do the same people in India. In Southern Europe, where the sirocco from the African deserts sweeps over the country like a fiery blast from a furnace, hepatic abscess is, comparatively, seldom seen. In the East and West Indies it is more abundant, and in the Southwestern portion of our own country, it is by no means a rare disease. Dr. Samuel D. Gross, of Philadelphia, writes:* "They are also sufficiently common among the boatmen of our own Southern rivers. Some years ago, nearly a dozen cases of hepatic abscess, all from Louisiana, were admitted into the Louisville hospital in less than two months."

The reporter, in 1852, 1853, and 1854, saw numerous cases of this disease in the Charity and City Hospitals at St. Louis, Mo. They mostly belonged to that class of persons alluded to by Dr. Gross. Upon the other hand, in the South Atlantic States, where the climate is very similar to that of the Lower Mississippi Valley, hepatic abscess is comparatively rare. During three years that the writer was stationed at Beaufort and Hilton Head, South Carolina, and St. Augustine, Florida, he did not see a single case of abscess of the liver.

In regions where malaria and a high degree of temperature co-exist, as in the delta of the Ganges and Brahma-pootra, and in the Presidencies of Bengal and Madras, in India, we find the prevalence of hepatic abscess reaches its maximum.

I think there is little doubt that both malaria and heat play a prominent part in the causation of this disease. Malaria does this by impairing the general health, lowering the tone of the system, favoring local stasis of the blood, producing congestions of the viscera, especially of the liver and spleen, during the cold stage of malarial fevers, and by increasing the

* Gross's "Surgery," vol. ii. p. 712.

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disintegration of tissue, vastly augmenting the labor to be performed (as an excretory organ) by the liver.

Heat is an acknowledged stimulant of this gland, and when intense and long-continued, as it is in India and other tropical regions, it is goaded on to excessive activity, which will, sooner or later, impair its secretory power, rendering it unable to do the work required of it; consequently the blood becoming loaded with offensive and deleterious matter, that should have been separated by it, and its secretion—nature's laxative—becomes so vitiated and irritating, as to endanger inflammation of the mucous membrane of the bowels, over which it has to pass; and, as we shall presently endeavor to show, that this inflammation, especially when it implicates the colon and rectum, is the most prolific cause of this disease.

Nationality and habits of life have their influence in the production of hepatic abscess. British surgeons bear universal testimony that, in India, the European population suffer vastly more than do the natives; and the French surgeons in Algeria give evidence of the same fact. The high living which Englishmen, whether at home or abroad, indulge in, such as the consumption of large quantities of hydro-carbonaceous food (which, in a hot climate, cannot be assimilated,) and the ingestion of large quantities of malt, vinous, and spirituous liquor, play a prominent part in its causation.

To detail all the conditions and circumstances that have been enumerated as causes of hepatic abscess, would extend this paper to an unwarrantable length. I must therefore be content to name a few of the more prominent, and cite authorities, where a full description may be found.

Contusions and mechanical violence.—Andral, Louis, Morehead, Aitken, and Budd.

Gastric ulcer.—Andral, Louis, and Seymour.

Softening of the gastric mucous membrane.—Andral.

Ulceration of duodenum.—Addison.

Ulceration of the gall-bladder and the gall ducts.—Budd, Louis, Bright, Mackay, Bowman, and Flint.

Ichorhæmia.—Tanner.

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Portal phlebitis.—Tanner, Niemeyer, Aitkin, Budd, Morehead, Parkes, Hartshorne, and Flint.

Pyemia.—Aitken.

Operations for hernia, and on the rectum.—Niemeyer, Aitken, and Budd.

Embolism and thrombosis.—Flint, Aitken, Hartshorne, and Niemeyer.

Dysentery.—Budd, Morehead, Annesley, Parkes, Macpherson, Stovell, Inness, Macnamara, Eyre, Marshall, and numerous other observers.

So close and intimate is the relation existing between this disease and hepatic abscess, that it requires more than a mere mention.

Medical authorities universally agree that an intimate relation does exist, but what it is, has not been definitely settled. Abercrombie, while acknowledging the intimacy of the relation, thinks it merely accidental. He says: "Dysentery is often accompanied by disease of the liver, in which are found, in some cases, abscesses, and in protracted cases, induration. These are to be regarded as *accidental combinations*, though they may considerably modify the symptoms."*

Annesley, who had extensive opportunities for observation, during a long residence in India, was impressed with the importance of establishing the true relation between these diseases, but confesses his inability to do so; and finally concludes that, in some cases, the abscess is the consequence of the dysentery; in others, that it is the result; while in a third class they spring from a common cause.

Dr. Budd thinks that in nearly all instances where these diseases are associated, the abscess is the consequence of the dysentery; and a large majority of modern observers coincide with Dr. Budd's opinion. Admitting this is generally the true relation, it is obvious the liver lesion must occur through the contamination of the portal blood, either through the absorption of septic matter, or of pus, from the inflamed bowel,

* Abercrombie's "Diseases of the Stomach," &c. Second Ed'n, p. 266.

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or from the introduction of particles of gangrenous tissue through disintegrated walls of the venula of the colon or the rectum, or by the formation of thrombi in the same vessels. Dr. Budd, in speaking of this subject, says: "This may either be by pus formed by suppurative inflammation of one of the small intestinal veins, or by matter of other kind resulting from softening of the tissue; or by fetid, gaseous, and liquid contents of the large intestines, in dysentery, which must be absorbed and conveyed immediately to the liver."*

This distinguished observer further argues that "if the morbid matter is such that it does not readily mix with the blood, as pus, or mercury,† it will cause small, circumscribed abscesses; and if the morbid matter is readily diffusible in the blood, all the blood will be vitiated, and diffuse inflammation result."‡

Niemeyer writes: "The occurrence of metastasis in the liver, from peripheral suppuration, should induce the belief that emboli which have passed through the capillaries of the lung, may plug up the hepatic artery."||

My own convictions are, that, in a very large majority of cases where these diseases co-exist, dysentery is the antecedent, and the hepatic lesion the consequent. When abscess of the liver follows peripheral suppuration (which is an infrequent occurrence), we can hardly do otherwise than accept the explanation of Niemeyer.

Annesley, Morehead, Parkes, and many other eminent observers, agree that, in India, the hepatic lesion frequently precedes the intestinal disease; but this does not disprove the position I have taken. Every practitioner who has practiced his profession in a highly malarious district, cannot have failed to notice the extreme frequency of hepatic congestion, as a sequence of malarial fevers. In India, with its intense heat and pestilential atmosphere, this congestion must be very frequent

* Budd on "Diseases of the Liver." Second American Edition, p. 93.

† Ibid.

‡ Refers to the experiments of Cruveilhier and Saunders.

|| "Text-Book Prac. Medicine," vol. i. p. 638.

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and excessive, of a necessity causing extreme congestion of all the organs that return their blood through the liver; the hepatic secretion can hardly be other than vitiated, and extremely irritating to the mucous membrane of the bowel over which it must flow.

Is it a wonder that dysentery results?—especially when we take into consideration the fact that it is endemic, and that there exists everywhere in India a strong tendency to the disease; and when it is established, suppurative hepatitis is extremely liable to be a consequence; but were it not for the superventiion of the intestinal inflammation, and the transference of septic matter, or fragments of emboli, through the portal circulation to the liver, suppurative inflammation would seldom supervene; and although the hepatic congestion may be antecedent to the intestinal inflammation, yet it is no more the cause of an abscess than was the malarial fever, in which the hyperemia of the liver originated.

The association of hepatic abscess and dysentery is not equally frequent in all countries and in all epidemics, or among all nationalities. The natives of India seldom have hepatic abscess, as a result of dysentery; nor do the inhabitants of our own country, or of England, have it from that cause, in their native lands; but in India, Algeria, and other tropical countries, they are extremely prone to it, especially when dysentery is epidemic.

Dr. Finger, of Prague, dissected two hundred and thirty-one (231) subjects who died with dysentery, without finding a single abscess in the liver. Braussias and Bailey's autopsies gave the same result, and Rokistansky, with his vast experience, failed to find visible disease of the liver, after death from dysentery.

Dr. Bristowe, in an analysis of three hundred and twenty-four (324) cases, found only four hepatic abscesses. The same writer found, in thirty-one cases of abscess of the liver, only six in which there existed intestinal ulceration.'

In the Irish epidemic of 1818, Dr. Cheyne found, in Dublin, twelve per cent. of dysentery cases complicated with ab-

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scess of liver. On the other hand, within the tropics, and especially in India, the hepatic complication is much more frequent. In the Madras Presidency, 50.97 per cent. of dysentery cases are associated with abscess—(Annesley). In Madras City the ratio is 50.09 per cent.—(Macnamara). In the Bombay General Hospital 40.00 per cent.—(Morehead). In the Madras Fusileers, 22.8 per cent.—(Waring). In various localities, 23.5 per cent.—(Stovell). In all India, 57 per cent. of dysentery cases are complicated with some hepatic lesion, and 23 per cent. with abscess.

From the above it will be seen that in cold and temperate regions hepatic abscess is a comparatively rare complication of dysentery, while in tropical countries, and especially in India, they frequently co-exist.

Abscess of the liver may be either single or multiple—that is, there may be within the liver but one, or several collections of pus at the same time; and I believe this peculiarity to have some connection with the etiology of the disease, which, in a subsequent portion of this paper, I will endeavor, briefly, to explain; but before discussing this part of my subject, I desire to invite attention to the generally received nomenclature of this disease, and to record my objection to it.

Dr. Budd treats of hepatic abscess as "Suppurative Inflammation," and in his work on *Diseases of the Liver*, he makes Suppurative, Gangrenous, and Adhesive Inflammation, the first, second, and third orders of his classification. Dr. Aitken calls it "Circumscribed Inflammation and Abscess of the Liver." Dr. Flint, "Circumscribed Suppurative Inflammation." Dr. Niemeyer, "Suppurative Hepatitis." Drs. Annesley, Cambay, Haspell, Morehead, Parkes, and Macnamara, have adopted Dr. Budd's views and nomenclature.

If these distinguished observers mean that inflammation in one case gives rise to suppuration, in a second to gangrene, and in a third to adhesion, we heartily concur with them in the opinion; but if they mean a particular kind of inflammation causes suppuration, a second kind gangrene, and a third adhesion, we are compelled to dissent from the view. Nor can

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I adopt the teachings of those authorities who consider suppuration, ulceration, adhesion, and granulation, as terminations of inflammations. To terminate is to end, and inflammation ends only in resolution and gangrene. In the one, the diseased tissues return to their normal condition; in the other, they terminate in death. Suppuration, adhesion, &c., are not terminations—they do not put an end to the inflammation, but are results of it, and continue with it. There is but one inflammation. It is unphilosophical to say that one inflammation is adhesive, another suppurative, and a third gangrenous; for in each it is the same morbid process, and the various phenomena that attend it depend upon its intensity, the nature of the tissue implicated, and the characteristics of the affected individual.

Dr. Aitken writes: "Circumscribed inflammation of the liver, or, as it is sometimes called, *suppurative inflammation of the liver*, is always limited to one or to several isolated patches, and, with the exception of congestive turgidness of the contiguous textures, the remaining portion of the gland tissue is rarely implicated."*

Niemeyer says: "In parenchymatous hepatitis, the entire organ is never inflamed; but there are always inflamed spots. These vary in size. Often there is only one; in other cases, numbers of them are scattered through the liver."†

Annesley has said that abscess is never the result of diffuse parenchymatous inflammation of the liver.

Quotations of a similar nature, from eminent pathologists, might be extended almost indefinitely, but it would be a work of supererrogation, and would serve no useful purpose. The above are sufficient to show the generally received opinion entertained by the profession, viz., that hepatic abscess is the result of circumscribed, and not of diffuse inflammation of the liver.

I am willing to concede that a large majority of cases, espe-

* Aitken's "Science and Practice of Medicine," vol. ii. p. 873.

† Niemeyer's "Text-Book of Practical Medicine," vol. i. pp. 638-9.

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cially when the disease occurs within the tropics, is the result of circumscribed hepatic inflammation; but from my own limited observation, I feel assured that abscess of the liver does occasionally result from diffuse inflammation of this gland, particularly when it is the sequel of malarial fever. I am glad to find such a distinguished author as Dr. Austin Flint, promulgating a similar doctrine. He says of "Acute diffuse hepatitis": "Engorgement and exudation are the primary events, as in inflammation of the pulmonary parenchyma; if resolution takes place, the exudation is absorbed, and the hepatic structure remains intact; but, if the disease do not pursue this favorable course, either purulent infiltration or the formation of abscesses ensues, involving more or less destruction of tissue, as in the third stage of pneumonitis."*

The smaller abscesses, which are sometimes single, but much oftener multiple, are generally—nay, almost invariably—the sequel of either dysentery, portal phlebitis, or ulceration of some of the viscera that discharge their blood into the portal vein.

The explanation is easily understood: Fragments of clots (blood or fibrinous), disorganized tissue, pus cells, or septic matter, are carried along by the portal blood, until arrested in the narrowing portal veinlets, constituting embolia, which become centres of inflammation, and lay the foundation of hepatic abscess. The first effect of plugging a vessel is to arrest the circulation through it, and to produce a stasis of blood in the parts supplied by the obstructed vessel, beyond the point of obstruction.

This subject has been thoroughly investigated by numerous distinguished pathologists, among whom may be favorably mentioned Cruveilier, Virchow, Dance, and Saunders; but space will not admit of following them through their numerous experiments. Suffice it to mention one or two made by Cruveilier and Dance.

These gentlemen injected mercury into the mesenteric vein

* Flint's "Practice of Medicine," page 513.

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of a dog. After twenty-four hours he died. The liver was studded with a vast number of deep-red spots; in the centre of each was found a minute globule of mercury. The surrounding circumscribed redness were small spots of inflammation, set up by the metalic embolia.

In another instance, Cruveilier, having found a dog with umbilical hernia, he injected mercury into a vein of the omentum. After ten weeks the dog was killed, and the liver found to contain a countless number of small abscesses, each holding a globule of mercury.

There can be no difficulty in comprehending the *modus operandi* by which these abscesses were formed. Substitute for the globules septic matter, carried away by the blood-current from the inflamed and ulcerated bowel, in dysentery, and, like the mercurial globule, arrested in the venula of the portal vein, and we have all the conditions required in the formation of circumscribed hepatic abscess.

In the difference of etiology of diffuse and circumscribed inflammation of the liver, may be found an explanation of their relative proneness to terminate in abscess. As it is, and as I have before stated, the liver and spleen are extremely subject to excessive congestion and enlargement, from malarial fevers. In a great majority of instances, the morbid action does not advance beyond this point, and upon the subsidence of the fever, the congestion disappears. In other cases, from causes I cannot in this brief article discuss, the morbid process advances, and inflammation takes the place of congestion; but even now the abnormal process may subside, and stop short of suppuration. Nay, very likely will stop, provided the exciting cause is removed—that is, the malarial fever cured. But other cases, perhaps only a very few, in which the inflammatory action, in spite of the best regulated measures to prevent it, advances to suppuration, and abscesses form. In these cases, the suppuration being diffuse, the abscess will be correspondingly extensive, frequently involving a large part of the gland, as it did in the case that heads this article.

In what has been called circumscribed suppurative inflam-

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mation, the etiology differs—the initial morbid process that culminates in the formation of an abscess, is wholly dissimilar. In this variety, the initial point is inflammation of some portion of the abdominal viscera (generally the intestines), that discharge their blood into the portal vein. Fragments of more or less disorganized tissue, pus cells, or septic matter, are detached from the inflamed or ulcerated tissues, which are carried forward by the portal blood until arrested in the small branches of the portal vein, forming embolia, which invariably originate inflammation in the contiguous tissues; and as it is impracticable to remove the local cause (embolia), there is little probability of the resulting inflammation terminating in resolution, as it so frequently does in diffuse hepatitis. Hence the inflammatory action becomes more and more intense, until suppuration results, and an abscess forms. As a simile, I will take an instance of a thorn, or splinter of wood, that has penetrated the soft tissues. If removed soon after its introduction, the grade of the resulting inflammation will usually be so mild as to rarely produce suppuration; it will advance to a certain point (one that will cause the divided tissues to adhere), when it will recede, and terminate in resolution; if, however, the offending substance is not removed, its continued presence is sufficient to cause the inflammation to advance to such a degree of intensity as to certainly produce suppuration.

According to the writer's views, the relative proneness of diffused and circumscribed inflammation of the liver to produce hepatic abscess, does not depend upon any peculiarity of the inflammatory process (for in both instances it is the same), but upon the continuance or subsidence, as the case may be, of the cause in which the inflammatory process originated.

[TO BE CONTINUED IN THE NEXT NUMBER.]

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A SILVER QUARTER DOLLAR IN ESOPHAGUS.

BY J. M. TAYLOR, M. D., OF CORINTH, MISS.

On the 15th of November, 1870, Miss W——, aged twelve years, was holding in her mouth, for epistaxis, a silver quarter dollar, which she inadvertently let slip down the throat. Her parents, probably thinking the specie "would pass," gave a dose of oil, which acted freely, but the money did not come. She vomited frequently through the day, but still the money was not dislodged. The subsequent symptoms were, a sensation of a foreign body behind the sternum, frequent spitting, constant bad taste in the mouth, frequent attacks of vomiting, great difficulty in swallowing solid food, requiring large quantities of liquids, as water, coffee, milk, &c., with all meals, to wash down the solid food.

Two or three physicians were consulted in regard to the case, all of whom gave it as their opinion that there was nothing in the throat.

She was brought to my office on the 25th of August, 1871. Her general health was a little impaired, but I could detect nothing to indicate to me the position of the coin. In one week after I saw her, she contracted whooping cough, and in one more week, viz., the 7th of September, 1871, in a violent paroxysm of coughing and vomiting, the coin was ejected from the mouth, ten months after swallowing it. It was blackened, and coated with mucus, but not otherwise changed.

After getting rid of the money, all the symptoms immediately subsided, and her general health was rapidly restored.

Now the question is, where was the coin lodged?

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INSECT BITE, COMPLICATED WITH FEVER.

BY WM. A. CAVENESS, M. D., OF CHEROKEE COUNTY, TEXAS.

ABOUT 12 o'clock on the night of the 27th of September last, I was called to Mrs. J——, aged about 45, who was bitten by a spider some fourteen hours previously. Found her suffering very much—mostly complaining of pain in and around the principal wound, which was about one and one-half inches forward and inward from the prominence of the trochanter major of the left thigh. This place was about four lines in diameter, of an irregular ovoid shape, and black color. Inward and downward from this were several black points, about one line in diameter, and which, I supposed, were caused by the claws of the insect. In no place did the skin seem to be broken. Slight swelling of thigh and leg; patient very restless; pulse 45, small and weak; yellow coat on tongue; bowels slightly constipated; skin indicative of malarial cachexy.

Ordered whisky toddy and morphine—two fluid ounces of whisky and about one-third of a grain of morphia acetas being given every hour.

The time that had elapsed since the infliction of the wound, and the fact that various poultices and "leaves" had been applied, kept me from using locally any of the remedies usual in such cases, and simple corn-meal poultices, made anodyne with laudanum, were ordered.

By 8 o'clock A. M. of the 29th, the patient was much quieter. Pulse nearly 60, and snatches of sleep had been obtained. Swelling of thigh and leg increased, for which fomentations were directed. A vegetable cholagogne cathartic was given for the constipation.

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September 30th.—Called on for advice. Mrs. J—— has something like remittent fever. Swelling greatly increased, having extended all over the body and upper extremities. At this time I was sick, but sent some carbolic liniment for wound, and some general directions in regard to fever. Afterward, my friend, Dr. U. M. Gilder, of New Salem, was called in attendance, and to him I am indebted for nearly all the subsequent history of the case. I extract from Dr. G.'s notes:

October 2nd.—Found swelling considerable in thigh and leg, though but little in upper extremities. Has fever. Suffering with frontal headache, and occasionally vomiting "coffee grounds," to use an expression of the family. Jaundiced appearance of skin; bowels constipated, and tender on pressure; tongue having a dry, dark, heavy coat; gave a pill composed of co. ex. colocynth, podophyllin, and leptandrin. Directed turpentine in emulsion every six hours, and morphia as symptoms might require. Carbolic liniment twice a day to wound. This liniment gave more relief than any other application.

October 4th.—Found patient stupid, and with very high fever; delirious during last night. Skin very yellow and dry; tongue as before, only darker. No swelling in body; some in leg and thigh—most in leg. Wound pained her very much since my previous visit. Copious, dark alvine discharges. Vomiting more "coffee grounds." Added to former treatment a mixture of aconite and gelsemium, to be given every two hours. Advised cutting away dead part, but patient would not consent. Ordered warm applications to hasten sloughing.

October 5th.—Photophobia to such a degree as to have a cloth over eyes all the time. No remission of fever, and jaundice more perfectly marked. Patient had rested better, however, last night. Wound causing much pain. As directions had been faithfully carried out, and seeing no benefit therefrom, a mercurial course was decided on. Ordered calomel, sub. nit. bismuth, acetate morphia, every two hours until three doses had been given, to be followed by a purgative of ol. ricini and ol. turpentine. Other treatment continued.

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October 6th.—Fever not so high; tongue as before; no change in color of skin; intolerance of light continues; wound sloughed about two inches on upper side, and is becoming offensive. Prescribed calomel, ipecac, acetate morphia, to be given as on yesterday; to be followed by sulphate potass. and rhubarb, in four hours. Very finely pulverized zinci sulphas sprinkled along line of demarcation, and slippery-elm poultices directed. Solution potass. permanganas to correct offensive smell.

October 7th.—Mrs. J—— better. Photophobia subsiding. Has but little fever; tongue moist; skin not so dry, though unchanged in appearance. Wound very sore; sloughing continued about an inch further on upper side, and began on lower side. Directed warm poultices, with bi-carb. soda mixed with them, to be kept up. Former treatment continued, excepting the mercurial, and added quinine, to be given every four hours.

October 8th.—Patient improving. No fever; tongue beginning to clear off. Slightly ptyalised. Sloughing continues slowly. About one inch of lower side—all the patient would allow—was cut. Previous treatment continued—chlorate potass. being added. Enemas ordered.

October 9th.—Patient slowly improving. Endeavored to cut out the dead mass—two-thirds of it having now separated, and was a source of considerable irritation and exhaustion from the profuse suppuration; but it was so painful she would not submit to the operation. Requested Dr. Caveness to be sent for next day, that we might remove it. Ordered tincture nux vomica, with citrate iron and quinine every six hours. Emulsion twice a day. Wound dressed as before.

October 10th.—Sloughing complete, excepting at the upper and outer portion of the wound, and some shreds of cellular tissue which still connected the dead mass with the sides and bottom of the wound. With the assistance of Dr. Caveness, the dead portion was removed very easily, and without causing much pain. With the removed slough was a section of the sartorious muscle, together with a portion of the lower

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superficial lymphatic glands of the groin. The wound measured in length seven and one-half inches, and from one and a half to two and three-fourths inches in width—the depth varying from one-half to one inch. General treatment continued. Locally, solution of permang. potass. twice a day, and a cloth saturated with olive oil placed over the wound.

October 11*th.*—Patient still improving, though slowly. The tongue is clearing off, and the appetite returning. Same general treatment, leaving off emulsion turpentine. Egg-nog and rich soups ordered. Stimulating ointment to wound. Adhesive strips applied. Potass. permanganas. continued. Dr. Gilder thinks the very best *local application* made to wound, after the slough was removed, was composed of carbolic acid, glycerine, and sulphate quinine.

From this time to the 26th of October, Dr. Gilder occasionally visited the patient, who continued to improve rapidly. At last visit she was sitting up and very cheerful. Two-thirds of the wound had filled up, and the Doctor thinks she will be well in fifteen days.

In the foregoing case, the following points are of interest, namely:

1. The *virulence* of the bite, or sting, causing photophobia, extensive sloughing, and general swelling, producing an anasarcous appearance.

2. The complication of fever. It may be said the fever was merely symptomatic, but it is believed that this was not the cause of it. This belief is founded on the general appearance of the patient, together with other symptoms.

3. Affording another of the many instances in which mercury is a *sine qua non* when we wish to produce a prompt and decided effect on the liver, and to arouse the secretions generally. The administration of this remedy was delayed on account of known idiosyncrasy of patient, and instead, the various vegetable remedies generally used were given.

4. The fine effect produced by the sprinkling the *sulphate zinc* on the line of demarcation. It hastened the sloughing very materially.

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5. Was the wound made by a spider? We think it was caused by a tarantula. Who knows? We have prescribed for a great number of wounds caused by spiders, but none like this.

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Selected.

URETHRAL FEVER FROM CATHETERISM.

ITS NATURE AND TREATMENT.

WHEN an instrument is introduced into the urethra, for the purpose of exploring the bladder, for drawing off the urine, or for dilating a stricture more or less grave, local and constitutional accidents sometimes supervene, and such casualties are most frequently the result of violence; but occasionally cautious, gentle, and successful catheterism, is followed by alarming symptoms, and even by death.

These constitutional manifestations are:

1st. Rigors with febrile reaction, sometimes followed by suppression of urine, and spoken of under the generic term of urethral or urinary fever.*

2nd. Pyæmia.

It is a well-established fact that urinary or urethral fever, arising from violence to the urethra or bladder, is "due to shock, propagated by the sympathetic nervous system, and reacting upon the blood vascular system," and that there is some

* Urinary fever occurs very frequently in cases of urethral, prostatic, and vesical trouble, where no instruments have ever been passed, and is then an indication of the existence at least of renal congestion. But in these instances it is—with the exception of cases of far advanced disease—of a milder type than when it occurs from instrumentation, and is often mistaken for malarial fever. The removal of the cause of vesical trouble, or of urethral obstruction, soon cures this form of "ague."

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analogy between this ailment and malarial fever; hence the additional title of *intermittent* urethral fever. Urinary fever may be ushered in by a very slight rigor, or even only by a sense of formication or of horripilation, followed by little, if any, febrile reaction, or the attack may be of the most violent, overwhelming, fulminating character, similar to congestive remittent fever of the severest type, and may cause death in an extremely short space of time.

Mr. Banks relates the case of a man between forty and fifty years of age, apparently much broken down in health, who was treated at the Liverpool Royal Infirmary for urethral stricture. There was a false passage in the urethra, and the first catheterism failed, but the second was successful (No. 6 or 7 catheter), and, though difficult, "no undue violence was used and very little pain was complained of; there was no bleeding, and nothing to indicate that there was any lesion of the urethra, except the pre-existing false passage, but almost immediately after the entrance of the catheter into the bladder the man was seized with a severe rigor. The instrument was at once cautiously withdrawn, but the patient passed into a state of profound syncope, and in a few minutes died." No autopsy could be obtained, but the existence of a flabby heart was strongly suspected.*

Mr. Banks also gives the account of a typical case of urethral fever, from catheterism, proving fatal in six and a half hours after the passage of the instrument. In this case, the stricture, which was long and narrow, and in the pendulous portion of the urethra, had been gradually dilated to No. 4. On the first day a small probe only could be passed, and was left in for half an hour. On the third or fourth day, Nos. 1 and 2 metallic bougies were tried, but failed, and a fine probe-pointed bougie was passed, and left in ten minutes, and two

* "On Certain Rapidly Fatal Cases of Urethral Fever after Catheterism." By W. Mitchell Banks, F.R.C.S.E., Lecturer on Anatomy in the Liverpool School of Medicine. "Edinburgh Medical Journal," June, 1871, p. 1074. The reader is referred to Mr. Banks' excellent article for some very important and interesting particulars regarding this subject.

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minims of Fleming's tincture of aconite given. The dose of aconite was administered after each catheterism, which was practised every four days. On the next occasion, Nos. ½ and 1 were passed through the stricture, and after these a fine catgut bougie, which was left in for an hour. When removed, it was found still tightly grasped, and on this and each succeeding occasion, a stream of urine followed the withdrawal of the instrument. In this way the urethra was dilated, chiefly by catgut bougies, till the fatal day, when No. 4 metallic bougie was passed through the stricture into the bladder for the first time. It went quite easily, was removed in about ten minutes, and was followed, as usual, by a stream of urine, but no blood came. The customary dose of aconite was given. In about half an hour he vomited his dinner, and soon had a rigor. In two hours he had another rigor, still continued to retch, and had a rapid pulse. Another two-minim dose of Fleming's tincture, with brandy and water, but this was soon vomited, and nothing could be kept down afterwards. He then began to complain of pain in the region of the bladder and in the loins, the pulse became quicker and weaker, and in spite of all that could be done the retching continued, and he died, having lost consciousness but a moment before, in six and a half hours after the last catheterism.

The autopsy revealed a long stricture, commencing at about two inches from the meatus. No injury whatever had been done to the urethra. The organs were all perfectly healthy. No congestion of the lungs. In the bladder was about a tablespoonful of thick muddy urine. The kidneys were examined with great care. They were slightly congested, and on pressure a thickish, turbid urine escaped from the calices, but beyond this no disease was found.

Similar cases were mentioned by Reybard, Velpeau, and others, but in most instances death has not been so sudden as in the foregoing cases of Mr. Banks; twelve to twenty-four hours, or even more, elapsing between the catheterism and the fatal issue. In cases of urinary obstruction with renal complication, unless the precautions to be hereafter indicated be taken,

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urethral fever is almost certain, at one time or another, to follow the introduction of the catheter. The instrument may have been passed at regular intervals for weeks or months, without any very great amount of pain, and without giving rise to any discomfort, or it may have been followed on one or two occasions, by a mild attack of fever, but finally the same careful catheterism is practised—but *on the wrong day*, perhaps, when the patient's functions are temporarily disordered—and in a few hours he is suddenly and unexpectedly seized with a severe rigor, from the effects of which he may never rally. Sir Henry Thompson reports a case in point at page 94 of his Treatise on Stricture of the Urethra, third edition, London. He says:

"I have seen one case of old standing and narrow stricture, in which death was thus caused within fifty-four hours of the passing of an instrument, the same that had been habitually employed on at least a hundred occasions before; no damage whatever having been inflicted by it upon the urethra, as verified by several careful observers on close post-mortem examination of the parts. Rigors and vomiting commenced about an hour after the catheterism, and not another ounce of urine was secreted from that time until death. The kidneys were congested to an extraordinary degree, and their substance was so soft and friable as to give way under gentle pressure. Very rapid changes had evidently taken place in these organs, but no signs whatever of inflammation existed in any other part of the urinary apparatus."

The grave type of urinary fever is a much dreaded, but now happily comparatively rare, accident of the operations of lithotripsy, lithotomy, internal and external urethrotomy and divulsion, as these operations are not resorted to, in our day, when advanced disease of the kidneys and of the bladder is suspected. In thirty-one operations of external perineal urethrotomy, there occurred but three cases of urethral fever, the attacks being mild in two, but fulminating in one, which ended fatally in fifty-six hours.

Between these two extreme types—the very mild and the very severe—there is a form of urethral fever, preceded by headache, malaise, pain in the back, and, in fact, all the premonitory symptoms of an attack of ague, in which the chill

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may be deferred four, eight, twelve, twenty-four, or even forty-eight hours, after catheterism or other operation upon the urinary organs. This is, however, amenable to treatment, and recovery may be expected in the great majority of cases. It has long been supposed that the chill is ushered in by the passage of urine upon a denuded surface, but such is not the case, as the rigor often occurs before the first act of micturition, or when—the patient having been repeatedly relieved by the catheter—not a drop of urine has come in contact with the urethral canal. If the contact of the urine with the raw surfaces were the sole, or even the principal cause of this trouble, urinary fever would almost always ensue from lithotomy, internal and external urethrotomy, and divulsion; but facts are against this theory.

Suppression of urine is a common complication of urethral fever, but, though frequently fatal, is not necessarily always so. Mr. Banks, in speaking of the rapidly fatal forms of urethral fever with suppression of urine, says:

"In many cases, no urine is secreted from the moment the instrument has been passed to the time of death, and this non-secretion has too often been reported as the primarily fatal cause, without consideration of the fact that it is simply a secondary effect upon the renal organs of the great general shock, and, although without doubt greatly tending to precipitate the fatal event, should by no means be regarded as a primary cause, but only as a complication. This is shown, first, by the fact that persons have been known to die so soon after the catheterism that the mere non-secretion of urine could have had nothing to do with the fatal issue. . . . . Secondly. Even when no urine has been secreted, and time has been given for the non-eliminated urea to act noxiously, the symptoms have not been those of uræmic poisoning."

Among the severe cases that I have observed, several showed symptoms of uræmic poisoning; some have recovered, the majority have died, and the pathological lesions of the kidneys were, intense congestion in some, in others infraction, while in others still—that lingered several days—there was interstitial nephritis in its various stages, to suppuration.

Suppression of urine may be partial or complete; the former is of frequent occurrence, while the latter is rare. The symp-

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toms are, dull pains in the regions of the kidneys, no desire to void urine, some febrile reaction, thirst, sometimes vomiting of green bilious matter having a disagreeable urinous smell. The alvine dejections have the same urinous fetor, and the breath and the cutaneous perspiration are also offensively urinous.

Purulent infection occasionally follows urethral fever, although it usually occurs independently of this ailment; and the irregular chills which are caused by urethral pyæmia, should not be confounded with those of urethral fever.

TREATMENT OF URETHRAL FEVER.

As the existence of renal disease is a strong predisposing cause of urethral fever, it is necessary, in each case such disease is even suspected, to institute a preparatory course of treatment for several days before the intended catheterism be attempted; but I go further than this, and prepare all patients —with the exception, of course, of emergent cases—for five or six days before they are placed under mechanical treatment, and consequently now have, in my own practice, but very few cases of urethral fever to treat. The preparatory treatment which I usually resort to is as follows: After free catharsis, rest should be enjoined for a day or two, a hot hip bath ordered at night, a diluent drink three or four times daily, ten minims of tincture of chloride of iron three times a day, and five grains of quinine every night.

Quinine was first given in free doses, for urethral fever, by Bricheteau, who, in 1847, reported several cases successfully treated with doses of ten, twelve, and fifteen grains.* More recently, Ricord, who was not at first a believer in the efficacy of quinine in urinary fever, said, at the Surgical Society of Paris, that he had come to the point of never performing any operation upon the urethra without having previously administered quinine, and that ever since he had adopted this pre-

* Des Fievres Intermittentes Pernicieuses chez les veillards.—"Archives Generales de Medecine," 1847.

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ventive treatment, the number of cases of urethral fever, so great before in his hospital service, had almost miraculously diminished. This alkaloid is undoubtedly one of the most effective of the remedial agents given to combat urethral fever, and should be administered in a dose of at least ten grains, with half a grain of opium after each catherism, and, when necessary, should be increased to fifteen or twenty grains in the twenty-four hours.

Mr. Long speaks highly of two-minim doses of Fleming's tincture of aconite, for preventing rigors in cases where they had occurred after catheterism.* This is, I believe, another excellent remedy, but I would not take it in exchange for quinine. I have lately, however, given it in combination with quinine.

In the very mild cases of urethral fever, a hot drink of any kind, and rest for a few hours, will generally suffice.

When that ominous complication, suppression of urine, occurs, the case should be treated with the greatest caution; and, let me first say, the medical attendant should *beware* of administering diuretics. After the first catheterism—to positively exclude retention of urine—no instrument of any kind should be passed into the urethra. The next indicatiou is to establish at once a vicarious excretion of the elements of the urine, if Nature, in her conservative effort, has not already done so. The skin, and the intestinal mucous membrane, should be made to do duty for the kidneys until the latter are in a condition to perform their function.

The *hot-air bath* is the most rapid mode of effecting diaphoresis, but as it cannot be given more than once or twice in the twenty-four hours, it is necessary to administer, by mouth, quarter-of-a-grain doses of ipecac every two or three hours, with hot borage tea, or any other diaphoretic.

Catharsis may be procured and kept up by any of the hydragogues; but small doses of sulphate of soda and of magnesia, in hot water, often repeated, will fulfil the object very

* "Liverpool Medico-Chirurgical Journal," January, 1858.

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well, without weakening the patient. Hop fomentations should be constantly applied during the day to the lumbar and hypogastric regions, and the loins should be freely dry-cupped. Then a teaspoonful of the infusion of digitalis* should be given every hour or two hours, and the effect on the circulation closely watched.

The whole cutaneous surface, which exhales sometimes such an offensively urinous odor, should be thoroughly dried and rubbed with a warm towel, at least three or four times in the day. The patient should be covered in bed, well nourished with concentrated mixed food, and, if he should become enfeebled by too profuse diaphoresis, a hot brandy toddy should be administered once or twice a day.

The patient is generally safe, if there be not advanced renal disease, as long as diaphoresis and catharsis can be kept up. Complete suppression of urine may last several days, but when the kidneys do not secrete urine in the course of three or four days, the chances of recovery are decidedly lessened.

J. W. S. Gouley, M. D.

Medical Record.—Virginia Clinical Record.

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* The infusion should be used in preference to the tincture or the extract of digitalis, as it is known to be more effective as a diuretic than either of the latter.

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Extracts from Home and Foreign Journals.

SURGICAL.

COLLATED BY PAUL F. EVE, M. D.

POSITION OF THE PATIENT IN SEARCHING FOR FOREIGN BODIES IN GUNSHOT WOUNDS.

At a meeting of the Académie de Médecine, on the 10th of September, M. Legouest referred to a recent and memorable exemplification which occurred in the case of Marshal McMahon, grievously wounded at Sedan by the fragments of a shell. There was a wound as large as the hand at the posterior and left lateral part of the pelvis, which was carefully explored with the finger and a female catheter. Nothing being detected, the patient was made to take, as near as possible, the position he held on horseback when wounded, and, on carrying his hand in the direction which the projectile ought to have pursued, M. Ligouest felt in the substance of the parts, about three centimetres below the anterior superior iliac spine, a roundish tumor. A counter-opening was made, and a large fragment of lead was removed, together with the portions of clothing it had carried with it.

Having adverted to the various instruments—such as Nélaton's and other probes—which have been devised for the detection of the nature of the foreign body when deeply placed, he demonstrated before the Academy his own simple mode of procedure for detecting this when composed of lead. For this he uses the stem of the common clay pipe which every soldier has about him, and, passing it down to the bullet by turning

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it round and rubbing it on this, colors it black, and even brings out particles of the metal. He is then able to make with it traces on paper, as with a pencil, and, having damped these first with vinegar, and then with a solution of iodide of potassium, he produces the fine yellow characterising the iodide of lead.—*London Medical Times and Gazette.*

DEATHS FROM SMAKE-BITES.

During the three years ending 1869, there were killed by snakes—in Madras 760, in Bombay (exclusive of Scinde) 588, in Bengal 14,787, in the Northwestern Provinces 2,474, in the Punjaub 1,064, in Oude 3,782, in the Central Provinces 1,961, in Hyderabad 226, and in British Burmah 22, making a terrible total of 25,664. During the same period, there were killed by wild beasts 12,554.—*Ibid.*

IMPOTENCY.

Prof. D. Hayes Agnew, of Philadelphia (*Medical and Surgical Reporter*), in a clinical lecture on impotency, after stating that the treatment must be largely moral, and urging the abandonment of onanism or excessive venery, says there is no better internal treatment than phosphorus and strychnia—1-50 grain of the former, and 1-30 of the latter—made into a pill, and administered three times daily.—*Clinic.*

PARACENTESIS EXTRAORDINARY.

Drs. Haymaker and Graham, of Oregon, Indiana, communicate the following extraordinary case:

Mrs. Gyer, 61 years of age, and mother of three children, was tapped in 1854 for ascites, ten gallons of fluid being removed. Since that time she has been regularly tapped by her husband, at intervals of from six to twelve weeks, an average of five gallons being removed at each operation. She has now had paracentesis performed one hundred and thirty times in less than eighteen years, and the enormous quantity of six hundred and eighty-five gallons has been thus removed. She takes no medicine, does all her household work, and bids fair

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to live long. This is certainly a remarkable history. More that twenty-one barrels of fluid from the peritoneal cavity, or, putting it by weight, some 6,850lbs., in less than eighteen years! . . . . Cann reported a case to the Paris Academy of Medicine, in which a woman was tapped, during fifteen years, 886 times, and was cured. Our Indiana case must yield to this.—*American Practitioner.*

SECRET OF SUCCESS IN OPERATIONS.

Professor Humphrey, F. R. S., in a lecture on the subject of lithotomy (*Lancet*) says:

"The secret of success in operations, as in all other efforts in life, is a painstaking and careful method of procedure; and in no operation is this more true than in lithotomy. In it the recovery of the patient depends, perhaps, more directly than in any other, on the manner in which it is performed. Accordingly, when, thirty years ago, having just emerged from the period of pupilage, I had the good fortune to be appointed surgeon to this hospital, where I knew I should often be called upon to perform lithotomy, I was much impressed with the responsibility of the task, and set about seriously to consider the mode in which it could best be done; and I laid down for myself a plan to which I have ever since closely adhered. A careful investigation of the subject, and a consideration of the different modes of operation practiced by the most eminent men, convinced me that in this, as in most operations, the minimum of deep cutting was the safest course, and gave the best results. Reading confirmed what observation had shown me, and what reason had suggested, that not the brilliant, but the cautious operators, were the most successful. I came to the conclusion that, in deeply-seated parts, it is better to make nineteen or twenty cuts, amounting in the aggregate to nine-tenths of an inch, provided that is sufficient, than one cut amounting to an inch. The extra tenth will, now and then, turn the scale against the patient, though the quicker proceeding may seem to tell in favor of the operator."—*American Practitioner.*

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OPENING THE PUSTULES IN VARIOLA.

BY PROF. C. O. CURTMAN, M. D.

The *modus operandi* pursued was as follows: As soon as the pustules had sufficiently filled (a few cases even while yet in the state of vesicles) a curved double-edged surgeon's needle was passed into and through the epidermic layer, which forms their outer covering, and made to cut its way out on one or both sides, so as to give a free exit to the liquid contents. As soon as a patch of pocks had been thus laid open, a solution of carbolic acid in dilute glycerine, (carbolic acid one part, glycerine and water each eight parts), was, by means of a camel's-hair brush, applied to the open pustules. Very little internal medication was resorted to, excepting the internal exhibition of very dilute carbolic acid (3 to 5 grains per diem, dissolved in as much water as the patient desired to drink); and occasionally quinia, bromide of potassium, or other remedies rendered necessary by peculiar complications.

The result, after recovery, was, in every case, where the opening had been carefully and thoroughly performed, an entire absence of pits. But this was not the only result observed, although the opening of the pustules was at first intended only to accomplish that. Other and more immediate results were observed, and occurred with such regularity that I could not well resist the conclusion that they were the necessary sequence of the opening. Those were, a well-marked improvement of the symptoms, a fall of the temperature (sometimes $1\frac{1}{2}^{\circ}$ F. in twelve hours), a diminution of the frequency of the pulse, a return to consciousness after delirium, and last, but not least, a much more speedy desiccation of the eruption.

In confluent cases, the evacuation of the pus and the external application of carbolic acid were also used, and not without success; but as in those cases quinia, bromide of potassium, and other remedies, were also exhibited, it would hardly be fair to ascribe to any one of the remedies any preference over the other in producing the favorable results.

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In the very few cases of variola hemorrhagica and siliquosa which I met with (one of each) the opening proved impracticable, and no treatment was of any avail.

Altogether, during the last three years, I treated eighty-one cases of every degree of severity and variety of the variolous disease; in the greater number of these the treatment consisted principally of the opening of the pustules, together with the internal and external use of carbolic acid. Out of the 81 cases I had six deaths to report. No doubt great allowance must be made in this favorable result for the comparative mildness of the epidemic of 1869–70, in which most of my cases occurred, as well as for the greater proportion of lighter cases coming under treatment in private practice, as compared with those in hospitals.—*St. Louis Medical ond Surgical Journal.*

BLEACHED TINCTURE OF IODINE.

The *Pharmacist and Chemical Record* (July, 1872,) gives the following formula for the above preparation:

℞—Tincture of iodine.....
Glycerine, pure..... āā ℥i.
Sulphite of soda..... ʒi.

Rub the salt to a powder in a small mortar, and add the glycerine gradually; then pour in the tincture of iodine and triturate gently until a solution is effected, and the mixture assumes an amber color.

It is claimed that the properties of iodine are increased by the addition of the sulphite of soda, and that the glycerine enhances its value and convenience for local application.—G. —*Boston Medical and Surgical Journal.*

PALLIATIVE IN CANCER.

Edwin Payne, M. D., in a letter to the *London Lancet*, says that, "while search is being made for a cure for cancer, it will not be uninteresting to many of your readers to hear of a palliative. I have used as a lotion, with great palliative success, in a case of cancer of the breast, and in another case of cancer

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of the rectum, an American drug, 'hydrastis Canadensis'; it was preferred by both patients to any other form of lotion, for its painlessness, and for its power of keeping the surface in a more healthy condition, and free from offensive odor. The strength in which it was used was one drachm of tincture to eight ounces of water."—*Detroit Review of Medicine and Pharmacy.*

CASTRATION OF THE HUMAN FEMALE.

Our old friend, Dr. William A. Tatem, of Delaware, in a letter to us, describes a case equal to the famous one of the sow-spayer who removed his daughter's ovaries, given by Bœrhaave. Dr. Tatem says—

"Early in the present century, a man living in Gloucester County, New Jersey, was well known in that region as a castrator and spayer of domestic animals, and, about the year 1813, performed the latter operation on his wife, giving as a reason that she must not have any more children. If memory serves me right, the incision was made in one side, and both ovaries removed through the aperture. The woman became very ill, and Dr. Ayers, then living in Woodbury, was called to attend her.

"A few weeks since I wrote to my old friend, with whom I commenced the study of medicine, Dr. Joseph Fithian, requesting him to give what information he could about the fact. He replied that in 1815, when he came to reside in Woodbury to practice, he heard the case spoken of, and credit given Dr. Ayers for preserving the life of the woman, and saving the man from punishment."—*Medical and Surgical Reporter.*

[It is said the late Prof. Gibson removed both ovaries in the case of his second successful Cæsarian operation on the same woman.—*E.*]

TORSION OF ARTERIES.

J. Marion Sims, M. D., in an article on Ovariotomy, in the *New York Medical Journal*, says—

"It must be admitted that torsion of the arteries of the pe-

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dicle is an important improvement in the operation of ovariotomy, and for this we are indebted to Dr. G. D. Bebee,* of Chicago. Dr. Bebee divides the pedicle not at one full sweep of the scissors, but, severing a portion at a time, the vessels are seized and twisted as soon as divided. He had used torsion successfully in six cases, up to the time of his report. And why should we not twist the arteries of the pedicle? In Guy's Hospital, torsion is the rule in all amputations and exsections. They have not tied an artery there in the last four or five years.

"At Sedan, I twisted, for MacCormac, arteries in all sorts of operations, and never with any unhappy result. In his three amputations at the hip-joint, I twisted the arteries as fearlessly and as confidently as I did those of the wrist or the ankle, and with the same impunity.

"When I was at Guy's Hospital, in August, 1870, and saw them torsionizing arteries, even in a hip-joint amputation, I said to one of the surgeons, 'Have you twisted the arteries of the pedicle in ovariotomy?' He replied, 'No,' and in a manner that implied more; and yet for three years he and his colleagues had been daily using torsion, to the entire exclusion of the ligature. How hard is it for us to overcome the surgical dread of the peritoneal cavity handed down to us from the old masters!"

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* "American Journal of the Medical Sciences," April, 1871, page 353.

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MEDICAL.

BY W. L. NICHOL, M. D.

EARLY SYPHILITIC AFFECTIONS OF THE OSSEOUS SYSTEM.

Dr. Mauriac, of the Hôpital du Midi, has just terminated the publication, in the *Gazette des Hôpitaux*, of an elaborate series of papers under the title of "Precocious Syphilitic Affections of the Osseous System." The following are his general conclusions:

1. Epicranial periostites constitute one of the primary manifestations of syphilis, appearing sometimes a few days after an infectious chancre, and before the secondary symptoms.

2. Their exclusive seat seems to be in the periosteum of the cranium, and, if a hyperæmic or inflammatory lesion of the bone exists, this is accessory and subordinate to the periostitis.

3. This periostitis is a true inflammatory process, as shown by the acuteness of the symptoms and the rapidity of their course.

4. In the acquired syphilis of the adult this kind of tumor of the cranial periosteum has a decided tendency to resolution, disappearing speedily, without leaving any traces.

5. In children, the subjects of hereditary syphilis, these tumors are much more disposed to pass into a state of suppuration.

6. The pain produced in them radiates from a fixed point, as in neuralgia.

7. They may be either separate or confluent, and are chiefly situated at the anterior part of the cranium; and their duration, if left to themselves, varies between four and six weeks.

8. Periostites may also be produced at the commencing period of syphilis, on the ribs and their cartilages, and the sternum.

9. Like the pericranial, they are inflammatory, and disposed to resolution, and are the seat of fixed pains, with neuralgic irradiations.

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10. In this way they may induce dyspnœa, although "syphilitic asthma" may be due to various other causes.

11. Other portions as the osseous system, especially the tibia, may occasionally become affected in the same way.

12. Counting the commencement of the incubation of these lesions from that of the infecting chancre, this will be found to vary from 15 to 120 days.

13. The periostites may be manifested some days prior to the appearance of secondary cutaneous and mucous affections; and they appear spontaneously, without the intervention of any provocative cause.

14. They are more common and more serious in hereditary than in acquired syphilis; and they are oftener met with among the Arabs, in Africa, and the inhabitants of South America, than in Europeans.

15. The periostites of the long bones are usually attended with less irritation than those of the pericranium.

16. They may disappear spontaneously, but they do so much more rapidly under the influence of a combination of mercury and iodine and antiphlogistics.

17. They aggravate the prognosis of syphilis, although they usually coincide with but slight manifestations in other organs, and imply no malignity in either the local process or in the general tendency of the constitutional disease.—*London Medical Times and Gazette.*

ON THE TREATMENT OF PUERPERAL ECLAMPSIA.

The following is an extract from a paper read before the British Medical Association by A. B. Steele, of Liverpool:

The object of the paper was to show that the treatment of puerperal convulsions must be based upon a pure system of eclectism. In plethoric conditions of the system, free general depletion was essential. The amount of blood to be taken depended, not, as has been laid down by authors, upon the severity or frequency of the paroxysms, but upon the state of the circulation in the intervals. In an overloaded state of the vascular system, blood-letting had a directly sedative action

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on the spinal centres; while in an anæmic state of the system it only increased the mischief, by adding to the already augmented spinal irritability due to anæmia. Blood-letting in suitable cases had a two-fold action—curative in its action on the spinal cord, preventive in its action on the brain, preserving that organ from the injurious effects of pressure liable to result from the continued pressure during the paroxysms.

Convulsions had been attributed to cerebral congestion, but Dr. Marshall Hall has shown that no cerebral disease can produce convulsions which are exclusively a lesion of the true spinal system, although congestion or fulness of the cerebral vessels may indirectly cause convulsions by counter-pressure on the medulla oblongata.

In uræmic convulsions, blood-letting acted also as an eliminant, by removing at once, and directly, an appreciable quantity of the poisoned fluid. Manual dilatation of the cervix and immediate delivery, has been recommended as a universal rule, on the ground that the uræmic condition was speedily fatal—first to the child, and then to the mother. That this is a fallacy is shown by the fact that convulsions often persist for a long time after delivery, and, further, sometimes cases terminate favorably both to mother and child after some hours' duration; besides, uræmia is not a constant condition in this affection. Early delivery, while proper in certain conditions, is hurtful in others, by adding to the already exalted excitability of the reflex system. Statistics have shown that the mortality is less when labor is not artificially hastened.

The author attributed the death of the child to violent uterine action, rather than to uræmia, and the maternal deaths were chiefly referable either to exhaustion or secondary cerebral mischief. Chloroform was most valuable under certain conditions, but could not supersede the necessity for depletion in cases of extreme vascular fulness.—*Ibid.*

TREATMENT OF ERYSIPELAS.

In the treatment of erysipelas, Prof. Broca recommends the application of collodion upon the skin above the part attacked.

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The layer of collodion, which is to be on sound skin, should be from six to eight centimetres wide, and forming a complete circle, separating the healthy skin from that attacked. A slight circular compression is thus produced, and it is rare for the disease to cross this barrier, behind which it speedily fades. The part should be examined once or twice a day, in order at once to repair any fissures, and the collodion should be quite pure, without any oil, which is sometimes added to it.—*Boston Medical and Surgical Journal.*

A SINGULAR WAY OF OPENING THE BOWELS.

In old times they had a pill called the *Peristaltic Persuader*, which was much relied on for the relief of habitual constipation. A writer in the Philadelphia *Medical and Surgical Reporter* proposes to accomplish the purpose by what might be called tapping at the door. He says: "At a regular hour every day, all things being in readiness, tap gently and repeatedly on the anus with a bit of wood, or any substance hard enough to produce irritation, and the sphincter will almost certainly relax after a while."—*Pacific Medical and Surgical Journal.*

PROPHYLAXIS OF HYDROPHOBIA.

The *British Medical Journal* calls attention to the measures recommended by the Council of Hygiene of Bordeaux, for the better protection of people against the dangers of hydrophobia. It is well known that the madness of dogs has a period which is premonitory and harmless. If these periods were generally known, the dogs could be put out of the way before they become dangerous. On this subject the Council of Hygiene has issued the following instructions:

"A short time, sometimes two days after madness has seized a dog, it creates symptoms in the animal which it is indispensable to recognise.

"1. There is agitation and restlessness, and the dog turns himself continually in his kennel. If he be at liberty, he goes and comes, and seems to be seeking something; then he

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remains motionless, as if waiting; then starts, bites the air, as if he would catch a fly, and dashes himself howling and barking against the wall. The voice of his master dissipates these hallucinations, the dog obeys, but slowly, with hesitation, as if with regret.

"2. He does not try to bite; he is gentle, even affectionate, and he eats and drinks, but gnaws his litter, the ends of curtains, the padding of cushions, the coverlids of the beds, carpets, &c.

"3. By the movement of his paws about the sides of his open mouth, one might think he was trying to free his throat of a bone.

"4. His voice undergoes such a change that it is impossible not to be struck by it.

"5. The dog begins to fight with other dogs; this is a decidedly characteristic sign, if the dog be generally peaceful.

"The three symptoms last mentioned indicate an advanced period of the disease, and that the dog may become dangerous at any moment, if immediate measures are not taken. It is best to chain him up at once, or, better still, to kill him."

It is desirable that this advice be inserted at least once a year in the public papers. It would also seem particularly desirable and practicable that these rules should be printed on the back of the notices and receipts for dog-taxes. These excellent measures ought to become generally adopted.—*Boston Medical and Surgical Journal.*

OXIDE OF ZINC IN NIGHT SWEATS.

J. O. Webster, M. D., of Lynn, Massachusetts, writes thus to the *Boston Medical and Surgical Journal:*

"In the number of the *Journal* for July 4th, you quote from Dr. Williams's work on consumption: 'The medicine we have found to act as a specific on night-sweats is the oxide of zinc, in doses of two or three grains, in the form of a pill at night'; and you ask, 'how closely will the experience of the American physician coincide with this statement?' While the Surgeon of the National Military Asylum, Eastern Branch,

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1868–70, there were under my care many cases of consumption, mostly from two to five years' standing. Night-sweat was a very common symptom, and for its relief I learned to rely entirely on the oxide of zinc, three grains in pill at night, combined with a little hyoscyamus. It seemed as nearly entitled to the name of specific as any medicine in the Pharmacopœia."

NEW TREATMENT OF VENEREAL DISEASES AND OF ULCERATIVE SYPHILITIC AFFECTIONS BY IODOFORM.

This manual, by Howard F. Damon, M. D., (translated from the French by Dr. A. A. Izard,) presents the results of the treatment of twenty-seven cases, at l'Hôpital du Midi, by iodoform, "of infecting chancre, and of several of the symptoms of syphilis, but chiefly in the treatment of soft chancre and of consecutive bubo." The reported cases seem not to have been selected, but to have included the cases admitted during the months of April and May. Usually the chancre was bathed with chlorinated water and sprinkled with iodoform powder daily; if bubo existed, iodoform ointment was used until opened; when opened, the powder was preferred. The results of all the observations are summed up thus:

1. That iodoform is a therapeutic agent, producing, more certainly and more promptly than all the others ordinarily employed, the cicatrization of ulcerative syphilids in general, under whatever form they present themselves.

2. That, in the treatment of soft chancre, iodoform is in some sort a specific, by the promptness with which it produces cicatrization without pain.

3. That, in the treatment of simple or virulent buboes (non-syphilitic), iodoform can be employed in the form of an ointment, as a resolvent, during the early stage, with more success than the blister and tincture of iodine; during the period which succeeds to the opening of the bubo, no other medicament can be compared with it for the rapidity with which it brings about the cure.

4. In all the preceding cases, when the suppuration is abun-

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dant, it is preferable to commence the treatment by the solution of iodoform in glycerine and alcohol; iodoform in powder ought to be employed in the second place.

5. Iodoform acts not only as a topical agent, but still farther, as a local anæsthetic. The rapid cicatrization which takes place is due, 1st, to the simplicity of the dressing, which does not irritate the diseased parts; 2nd, to the absorption of the secretions by the iodoform powder; 3rd, to the antiseptic properties of the medicament—above all, when it is dissolved in alcohol and glycerine; 4th, to the presence of iodine, which acts favorably on all venereal ulcerations in general.

6. Iodoform appears to us to be completely incapable of arresting the progress of phagedenism.

7. The employment of iodoform in cases of syphilitic affections should never dispense with internal treatment.—*St. Louis Medical and Surgical Journal.*

MERCURIUS REDIVIVUS.

When mercury fell into disrepute, some twenty years ago, under the pressure of popular clamor, not a few individuals who had esteemed it good for every thing, swung to the opposite standpoint, and denounced it as worse than good for nothing. To cure even syphilis without it was a special merit with some distinguished practitioners, whilst charlatans, one and all, took advantage of the prevailing prejudice, and made opposition to mercury their catch-word. Latterly, the tide has turned, and the profession has fallen back almost unanimously to the mercurial treatment of syphilis. We believe there is no distinguished authority at present holding out against mercury. Ricord, who stands at the head of this specialty, is emphatic in the declaration of the necessity of employing mercury in the treatment of certain forms of venereal disease. Not only in this, but in other forms of disease, is the medicine re-introduced. In fact, men are simply returning to their senses, and learning what they should not have forgotten, that the abuse of a potent agent is no argument for its entire proscription from medicinal use.

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The preparations of mercury have a peculiar action on the bodily organs, not exercised by any other agent. That lives are frequently sacrificed to the prejudice against mercury we have no doubt. It has been our province to witness more than one case of disease ending in death, which we felt confident would have been cured by the "old mercurial doctor." That the metal was used lavishly and needlessly in former times we do not doubt. But that it ever inflicted a tenth part of the evils on society that have been charged on it, we do not believe. It is well, however, that it took its proper place in our list of therapeutic agents—to be administered with discretion, keeping in view all possible evils that may result from it, and employing it only when enlightened judgment points to proper occasions.—*Pacific Med. and Surg. Journal.*

DISEASE OF EAR ATTRIBUTED TO QUINIA.

In the *Transactions of the American Otological Society*, recently published, is described the case of a physician who was cinchonized for malarious disease, and who afterwards suffered from violent disease of the ear. His trouble began with laryngeal inflammation and chronic naso-pharyngeal catarrh. When the malarious affection supervened, he took twenty-five grains of quinia every other day, until ringing in the ears and dizziness came on, followed by severe otitis. The otitis was subdued by antiphlogistic treatment, and facial neuralgia followed, for which he took fifteen grains quinia, with the effect of producing pain in the ears. Every repetition of the dose was followed by pain. The naso-pharyngeal disease increased, with returning neuralgia and otitis. The last was brought on within twenty-four hours by a dose of quinia. He suffered for several years, spending a portion of the time in Europe. He became deaf, and his ears filled with inspissated wax. At length, after long and varied torment, he was restored to tolerable health by judicious treatment. Dr. St. John Roosa, of New York, who describes the case, attributes much of the ear disease to the quinia.—*Ibid.*

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THE HEAVIEST BRAIN ON RECORD.

Dr. James Morris, of London, reports the following case in the *British Medical Journal:*

On October 3rd, 1849, there was admitted into University College Hospital, James Hursey, aged 38, bricklayer, a robust looking man. Ruptured seventeen years before; he had left off his truss for two or three years; now the rupture was down and could not be returned. It was right inguinal, small and tense, with no impulse on coughing. In the evening, Mr. Arnott operated. The sac was opened; much serum, tinged with blood, ran from the abdomen; the omentum was adherent to the sac; the constricted bowel, of a dark mahogany color but shining surface, was returned. He did well at first, but died two days later. Erysipelas and pyæmia at that time prevailed in the hospital.

Of ten successive cases of strangulated hernia operated on by several different operators, and treated afterwards on the most diverse principles, only one survived. In that case (Mr. Marshall's) the sac was not opened.

The *post mortem* examination of Hursey disclosed peritonitis, a serous cyst in the liver, some damage to the kidneys, old pleuritic adhesions of the right side, recent lobular pneumonia (result of pyæmia), and some hypertrophy of the left ventricle of the heart. The weight of the brain, taken immediately on removal, exceeded sixty-seven ounces. This weighing was most carefully made, and was witnessed by several students. The brain was well proportioned; the convolutions were not flattened; though the surface was fairly moist, it only lost about one ounce weight after the usual dissection and draining for two hours. The specific gravity was not taken. The cerebellum and pons were separately weighed; of these I have not the figures, but there is no reason to suppose that they were disproportioned to the rest of the brain, as in the cholera case recorded by Dr. Parkes.

Hursey's height was five feet nine inches and a half. There was the utmost difficulty in obtaining a satisfactory history of

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him. His wife and his landlady gave different accounts. It seemed that he was a native of Sussex (Dr. Parkes' case was an Irishman), and had left his village, and changed his name, on account of some poaching troubles; that he was not very sober, had a good memory, and was fond of politics. He could neither read nor write.—*Philadelphia Medical and Surgical Reporter.*

GASTRALGIA AND TEA.—BY E. I. DIXON, L.R.C.P.

Attention having been lately drawn to the pernicious effects of immoderate indulgence in tea, some information respecting its abuse in the busy manufacturing centres of Lancashire, such as Preston, may be, perhaps, not uninteresting; and as a typical example I will relate the last case which presented itself to me only two days ago.

A middle-aged married woman, who had previously suffered from no exhausting disease, but had enjoyed, for the most part, good health, complained, whilst feeling generally weak and exhausted, especially of pain in the epigastrium and umbilical regions, not of an acutely spasmodic, but of a severely aching character. This pain came on at irregular times, but principally a short interval after eating, and was, on some days, scarcely ever absent, except before breakfast. There was no abdominal nor spinal tenderness, nor were there any neuralgic foci; there was occasionally a slight degree of heart-burn, but no nausea, vomiting, or other symptoms of dyspepsia. The tongue was clean, and somewhat pale, but there was no marked anæmia; bowels regular. No symptoms referable to disorder of other organs existed.

Now for the cause of this disorder. I learned, on investigation, that the following was the system of diet: Having to be at work at the cotton-spinning mill at six in the morning, she took, before she left her house, half a pint or more of hot tea, with perhaps a bit of bread and butter; at breakfast, a pint of hot tea and bread and butter; at dinner the same, with the addition of a bit of meat for the first day or two at the beginning of the week; at tea-time, the same; and at supper,

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perhaps a glass of beer was substituted for the tea. On the Saturday evenings, having left work in the middle of the day, she would perhaps be able to eat a good meal with meat. On Sunday she would again live better; but by Tuesday, or, at the farthest, Wednesday, she had not the appetite, in the heated atmosphere of the mill, to take anything but her warm-water meal. This woman thus subsisted, for the greater part of the week, upon bread and butter and hot infusion of tea, the quantity of the latter amounting to three and a half pints or more per diem.

Now this is a type of a great number of similar cases I see every year in my dispensary practice; the successful treatment of which may be summed up in the substitution of milk for tea. Half a pint of good milk, with a spoonful of rum in it, instead of the hot tea (often taken even without sugar), before going out to work; abundance of milk added to a small quantity of tea, at breakfast; and meat, if possible, for dinner, with beer if it can be taken. A bismuth mixture has also been prescribed, and a mustard poultice ordered to be applied to the epigastrium twice a week. When the patient appears before me the following week, he or she is invariably able to announce a material improvement; although in severe cases it has been necessary for the patient to leave work entirely for a time, for the purpose of rest, and in order to restore the appetite.

Now I do not assert that the tea, or the warm water in which it is dissolved, is the cause of the gastralgic pain which these patients suffer; although I have seen cases which render it probable that even when a sufficient supply of really nutritious food is taken, the abundant ingestion of hot infusion of tea has a great tendency to impair the power of the stomach and produce indigestion; nor will I theorise upon the possible *modus operandi*. But it seems to me it is the substitution of a slightly stimulating but almost innutritious article of diet for others of more nutritive value which produces the general debility and the local pain. "A free breakfast table" has been set forth as one of the great points of freedom of taxation to

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be aimed at; but such cases as these I have briefly narrated may perhaps be quoted to show the undesirability of extending and promoting the consumption of tea.—*London Practitioner* (Baltimore Reprint).

NOTES ON CHLORAL.

Dr. John Barclay records his experience of chloral hydrate in croup, insanity, delirium tremens, epilepsy, and asthma, and draws attention to a special peculiarity which he has observed with regard to its action when combined with iodide of potassium; namely, the remarkable power it possesses of intensifying the constitutional effect of the iodide.

He gives the details of a case of croup occurring in a child of fifteen months, which, after three days, seemed certain to die. Tracheotomy had been twice proposed, and the distress of breathing was extreme. More to relieve than with any hope of ultimate benefit, he ordered two grains of chloral with two minims of ipecacuanha wine, every two, three, or four hours, according to the effect produced. Ipecacuanha wine had been given before. Besides these, sherry was given freely. Before the chloral was given, the respirations were from sixty to seventy per minute, and the pulse varying from 144 to 156, and weak. The dyspnœa was extreme, and the voice and cough now close and dry. Within two hours after the first dose great relief in the breathing was observed, the child slept for half an hour at a time, the respirations and the pulse fell a little, and, what was more curious, a very copious exudation of mucus began in the larynx and trachea; indeed, so great did this become, that it was necessary to raise the child every half hour, when a little water or sherry was given to produce a cough, by which the air passages were cleared of mucus. Had the child been allowed to lie, it would soon have been suffocated; for, after the chloral was given and the exudation had commenced, there was not the slightest inclination to cough. Gradually the pulse fell, and the respiration became slower, till, at the end of twenty-four hours, the former was only 108 and the latter 30. This treatment was persevered in for forty-

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eight hours, after which, milk and sherry only were given. The recovery was slow, but steady.

In regard to insanity, Dr. Barclay has treated seven cases in private practice: five were females and two males. All were severe cases, and had insomnia for some weeks previous to the manifestation of delusions and illusions, and in none of them did the chloral fail to produce sleep. He agrees with Dr. Campbell, of Carlisle, in thinking that chloral, in these cases, is much to be preferred as an hypnotic to hyoscyamus, bromide of potassium, and even to morphia, as being a much more certain sleep-producer than either of these.

Dr. Barclay thinks that it proves of little service in asthma, but he gives various cases showing its value in delirium tremens and epilepsy, and also a series in which hydrate of chloral and iodide of potassium, being given together in small quantities, no less than ten out of fifteen patients were affected with iodism by the first or second dose of the mixture.—*London Lancet*, Sept. 1872.—*Ibid.*

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Editorials, Reviews, Etc.

OUR JOURNAL.

THE NASHVILLE JOURNAL OF MEDICINE AND SURGERY was commenced on the 1st day of January, 1851, the first number embracing January and February of that year—twenty-two years ago, from the termination of the present number. The first number contains—

I. An original article of eleven pages, on "Uterine Tumors," by the late Prof. Jno. M. Watson, M. D., of the University of Nashville.

II. An original communication on "Nervous Collapse after Parturition," by Prof. C. K. Winston, M. D., also of the University.

These articles show that diseases of women were uppermost in the minds of both these gentlemen, and the former died occupying the Chair relating to that enquiry, and the latter now holds it.

III. An original article on "Apoplexy," by J. W. King, M. D., of Nashville.

IV. "Six Cases of Phthisis Pulmonalis treated by Cod-liver Oil," communicated by D. W. Yandell, M. D., of Louisville, Kentucky. This is a paper of thirteen pages, and is drawn up with much care, and, if we do not greatly err, chronicles the first original cases upon tuberculosis treated by cod-liver oil published by an American physician; the first published in the English language having been by Dr. C. J. B. Williams, in 1849, consisting of notes of two hundred and thirty-four cases. Of these, "two hundred and six were

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greatly improved, varying in degree from temporary retardation of the progress of the disease, and the mitigation of distressing symptoms, to a more or less complete restoration to apparent health."

V. An original article on "Hydrothorax," by R. C. Foster, M. D., of Nashville. This is a well written article, showing the author well versed in his profession, and *au fait* on percussion and auscultation; nothing like so well understood by practitioners then as now.

VI. This is an original article "On the Inhalation of Chloroform in Traumatic Tetanus," by W. T. Briggs, M. D., of Bowling Green, Kentucky. Chloroform had then just been introduced. It is a remarkably clear statement of the case. There was a boldness and fearlessness in the use of the new remedy peculiarly striking, and prophetic of the man-surgeon this boy-surgeon was to be the father of. Of the inhalation he says: "Is now completely under the anæsthetic; insensible to external irritants, respiration easy, twenty to the minute; slight stertor; tetanic countenance gone; no convulsions; all muscular stiffness relaxed; back not raised from the bed; lower jaw fallen; head can be moved in any position." This was 3 o'clock p. m., and the Doctor says, "kept him until 9 o'clock under the chloroform, without change worthy of notice." Six hours! This gentleman is now Professor of Surgery in the University of Nashville, and of whom one of the most distinguished American Surgeons said, "He will attack anything."

This completes the list of original contributions to the first number, except the Editorial, comprising reviews, notices, &c., and Dr. Buchanan's letter from Philadelphia. Of these six contributions, two were by newly-created Professors; two others—Briggs and Yandell—both afterwards connected with medical journals, and both distinguished surgeons, and Professors of Surgery in Medical Schools, and one has reached the Presidency of the American Medical Association, and the other the Vice Presidency; while the two remaining of the six have since been connected with medical journals.

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The Editorial department opens with an account of the Origin of Medical Journals. This, our first Editorial, contains a terrible blunder; we copied the error from the *Western Journal of Medicine*, then conducted by Drs. Drake and Yandell, and were annoyed to find that it had led us so far wrong. A reader of Drake from the beginning, we could not see how it was possible that he could commit or overlook so egregious an error. But he had fallen into the pit, and we went in after him; and a medical Editor on the other side of the Appalachian hills no sooner saw our coat-tail disappear than he clapped down the lid and sat on it, drumming with his boot-heels against the curb in a paroxysm of the wildest delight. This was a sad start, but we recovered from it, in part, by reviewing this reviewer unmercifully for being asleep while on picket duty, and so letting Drake and Yandell pass unchallenged. He should have stopped that ball, we argued, as was his duty, by arresting Dr. Drake, and so saved us from falling into that pit. His self-congratulatory chuckle over this error, on our first appearance, is responsible for checkering our whole journalistic life with occasional controversial outbreaks, which we would now erase, if it were possible. "But the printer's press, like that of fate, has fixed their perpetuity."

From this our first Editorial we beg permission of our readers to quote the following, and to add, nearly a quarter of a century afterwards, that the truths it inculcates are, to our mind, unquestionable:

"Although a higher degree of scholarship and greater concentration of medical talent may exist in our large commercial cities—New York, Philadelphia, and Boston, for example—it does not follow that journals published at such points, though embodying, in an eminent degree, this concentration of talent, could supply the wants of physicians of the great intramontane basin reaching from the Gulf of Mexico in the South, to the great Lakes in the North. Diseases in this vast region have heretofore, and, from geological and other causes, will, in all probability, continue to differ widely in their essential phenomena from diseases of similar name, but of tramontane ori-

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gin. It is probable, therefore, that a great number of diseases will have, of necessity, to be investigated where they exist, in connection with such peculiarities as are imposed by local circumstances, before they can be thoroughly comprehended or satisfactorily treated.

"It may be argued that a great central journal might avail itself of the experience and observations of physicians in every quarter of the Union, and reflect back the light thus borrowed. But all experience shows that but few men are disposed to take upon themselves the gratuitous labor of writing for a remote journal, to the conductors of which they are totally unknown, and for whom they have no sympathy. That great leading journals ought, and will always exist at such points, and give tone, dignity, and a proper direction to the medical literature of the country, there can be no doubt; while those in less conspicuous places, like inferior courts in a harmonious judicial system, must content themselves in collecting and elaborating material for the action of the courts above.

"In this utilitarian age, it would be strange if we should aim at anything else than being useful. To be so, will require the coöperation of physicians of that region which it is our highest ambition to benefit. Let them remember that one single ray of light sent to us, by the multiplying power of our *Journal* will be reflected back, and become a ray to each of our readers. A journal is not only a magnifying, but a daguerrean apparatus: it *fixes* the ray in a form that perpetuates it. In this way it continues to enlighten even after the brain, of which it was a creation, has crumbled into dust."

Next we have an Editorial on the University of Nashville, where it is noted that the University is older than the State—that the germ of the University, Davidson Academy, was incorporated by the Legislature of North Carolina, December 29th, 1785, while not until 1796, eleven years after, was Tennessee admitted into the Union as a State. In 1779, six years before the incorporation of Davidson Academy, the Public Square of Nashville was planted in Indian corn. From our

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large sulphur spring, the region had been known, since 1767, to hunters and French traders, as "French Lick." The same year he who wrote the Editorial alluded to, and this, was born, the Academy building was finished, and the land with which North Carolina had endowed it, was sold in town lots for its support. Did Fate, by giving the same natal day to both, portend a subsequent identity of interest, to be maintained and upheld by joint labors and sacrifices?

The body that received the soul of the University, and the clay tenement elaborated by the Divine Artificer for the reception of our own, were finished on the same hour, but forty-two years afterwards, with ours knit and indurated by labor and toil, we stood before the ruins of that of the University, as it was being demolished, that a city street might pass through its centre. Bodiless as it was, and without hope in the world, we cemented our destinies together, and now glimpses behind the curtain of futurity assure us that when our labors shall have been forgotten, and that construction of letters which compose our name shall exist only as a myth—a Caractacus amid the Druids—the University, well known wherever science is cultivated, will rise higher and higher, in public estimation, with passing time, destined, like future rain and sunshine, to bless alike the righteous and unrighteous, the unselfish patriot who loses himself in heroic efforts to garland his country with new glories, and the slave to groveling passions, who would sell himself and his god for the means of securing their gratification.

In 1850, we show that there are 10,270 volumes in the University—that the Institution had graduated 432 young gentlemen, conferred the honorary degree of D. D. on sixteen, that of LL. D. on four, of A. M. on forty, and of A. B. on two.

In some ramarks Editorial, on typhoid fever, in this number, a singular omission occurs. We intended to say: ℞—Carb. potassa, ʒij.; citric acid, ʒijss.; water, ℥iv.—M. S.—Teaspoonful every hour. The printer left out the *water*, the *principal* ingredient. No one has said anything about it since to us, and of course no one ever attempted to give it—a fate

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not uncommon to more pretentious formulæ. We transcribe a few passages on typhoid fever from that Editorial, as they may be of interest to our young readers, and to show our students how exactly those views tally with those we have delivered in the University upon that subject the present session:

"With these remedies the patient very generally recovers during the second week. But sometimes he does not. The bowels become remarkably troublesome—the tongue is *rounded*, with a blackish dry coat upon it, with fiery red edges and tip; sordes begin to form upon the teeth; there is delirium; the patient talks constantly, and often raves; most usually imagining himself from home, and expressing a determination to return there. These symptoms rarely set in prior to great intestinal disturbance, and seldom fail to improve, *pari passu*, with an improvement of the bowels. We do not mean by improvement of the condition of the bowels that partial arrest of the diarrhœa superinduced by opium, or opium and lead. The cerebral disturbance, not unfrequently, greatly increases upon a temporary suspension of the peristaltic motion of the bowels thus induced. If, then, these head symptoms result from the progress of disease in the glands of Peyor, or the eliptical plates of the ileum, it is of every importance that we address our remedies chiefly to the bowels. Calomel and opium, so conspicuous for beneficence of action in diarrhœa from ordinary irritation or inflammation of the gastro-intestinal mucous membrane, is mischievous in the diarrhœa of typhoid fever. In the *beginning* of such diarrhœa, (for which the action of pil. hyd. et ipecac ought not, and indeed cannot be well mistaken,) there is no remedy in the materia medica comparable to the subnitrate of bismuth. From 10 to 30 grains, or a drachm, if necessary, mixed with a little sweetened water and given three times a day, is most satisfactory in its demonstrations. It is not an astringent, and seems to secure the benefits which result from it, by diffusing itself over the inflamed or ulcerated plates, and displaying its curative capability as a topical remedy. When we commence with the subnit. of bis.,

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we discontinue the pil. hyd. et ipecac, but continue the neutral mixture spoken of above. Poultices covering the entire abdomen, and kept up for a long time, do good in this condition of the bowels. If the patient rave, and exert himself so much as to threaten the powers of life, we have found no tranquilizer to equal a grain of the sulphate of morphine dissolved in half a small teacup of water, and thrown up the bowels.

"Now, there is a condition of the system not differing materially from that to which we have called the attention of the reader, as supervening upon active intestinal manifestations, which was first noticed by Dr. Wood, of Philadelphia, more than twenty-five years ago, and a new remedy suggested by him. We have often used this remedy, but never without emotions of gratitude toward the discoverer. Without it, in the condition of the case described, we would be almost powerless. It is simply the *oil of turpentine.* We have given it day after day, with no other medicine, when the sufferer seemed almost gone, yet has he rallied just as the lamp of life was about being extinguished for ever, and traveled slowly back to health. A 'step backwards,' under such circumstances, can alone be appropriately appreciated by the conscientious performer of the sad and gloomy rites of Æsculapius over the dying pillow of an unfortunate fellow mortal.

"I would urge the greatest caution concerning the administration of calomel in this disease, with a view to its constitutional effects. It has perpetrated great mischief in this fever, and seldom, if ever, accomplishes any good. The same may be said of quinine, which, from its great anti-febrile powers in miasmatic fevers, we are often tempted to try in typhoid.

* * * *

"After a suspension of the characteristic diarrhœa, the bowels are frequently sluggish, and great harm is often done the patient by an obedience to the old injunction, 'keep the bowels open.' An overweening desire on this subject ought not to be indulged, and during the crisis, or just succeeding it, if they remain stopped for three or four days, it is better than to risk the purturbating effects of even the mildest cathartic.

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By far the lowest patient we have ever had to recover from any disease, was one in the last stage of typhoid fever, and we intentionally avoided molesting his bowels for an entire week, during which time there was no discharge from them whatever; and yet, during the last four days of that period, there was a steady, progressive amendment."

The next is a most interesting letter of four pages from Prof. A. H. Buchanan, M. D., from Philadelphia, *en route* to London. This was the first of a series of beautiful letters received from that distinguished gentleman while abroad during that year, all of which are published in the first volume of the *Journal*, and in a very high degree contributed to the early success of that serial. Prof. Buchanan's letter from Philadelphia is a perfect picture of the professional men and institutions of that city, and the entire series, from his departure to Europe till his return, would to-day make one of the most interesting and instructive volumes in any medical library. We may hope that his son and only heir, who has greatly distinguished himself as an anatomist, and especially as an anatomical artist, will find it a labor of love to give these letters of his talented and laborious father to the public.

In the same number we say, concerning the permanency of our *Journal:* "We do not belong to that class of mortals who promise much, being content with that smaller praise which inures to one for what he performs. We have undertaken to publish a medical journal in Nashville, *and we will do it.* Those who know us, know that that is quite enough for us to say; those who do not, could scarcely be *written* into confidence. Our publisher *knows*, also, in this case, that the printer will not go without his *fee.*" And to our talented correspondents we make our acknowledgments as follows: "We return our sincere thanks to the talented medical gentlemen who have so promptly furnished us with original material of the very first quality for our introductory number. The review of the proof made us feel proud of our infant enterprise. We looked upon it with that air of self-satisfaction which *Boz* de-

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scribes as distinguishing the old clerk of the Cherible concern, while watching the first efforts of Nicholas upon his immaculate ledger; and in the pithy language of that faithful functionary, we ejaculated, '*it will do!*'"

Such are the outlines of our first journalistic foot-print. We are a thousand times prouder of it to-day, with a far better knowledge of its imperfections than we had then. A generation has passed since then, and in all that time our finger has been upon the pulse of the enterprise. It has faithfully struggled to lift up the young and sustain the old, regardless on which side of the Appalachian hills either had anchored himself or his hopes. We have acknowledged no enemies, and struggled for the honor and glory of the entire brotherhood. We have steered clear of and despised "rings," to build up or tear down any one. The dishonest pretenders we have excoriated as a class, but the individual members we have never known, and they have only advertised themselves when they have employed their dirty hands in throwing the exhuberant filth in which they wallowed vengefully at our head, to fall harmless at our feet. If we have occasionally shown weak places in illustrious persons, it was not to injure them, but that the defective side should not attract a class of followers, to the injury of the profession at large.

In regard to classified delusion or knavery, we have maintained only what every one knows to be true, that the whole is better than a part, and that the language of Medicine is,

> "No pent up Utica bounds our view.
> The whole boundless continent is ours."

While that of pretence and folly is—

> The whole's too much; a part's enough for me;
> In a–b abs, farewell to a–b–c!
> The body's dirt without imperial soul,
> And shows a part is greater than the whole.
> A little pathy is a glorious thing,
> But All-o'-pathy none but fools would sing.

No true physician fouls his mouth with such utterances as

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allopathy, homœopathy, negropathy, Indian-pathy, hobgoblin-pathy, globulistic-pathy, or spiritualistic-pathy, or any other pathy. A physician is a physician, and if he is anything more or less, he has no fellowship with those who cultivate Medicine as a science, and practice it as a profession—those alone who

> "Resolutely keep its laws,
> Uncarring consequences."

To this glorious consummation has our *Journal* labored. It has scorned all by-ways and cross-ways, and though always poor and struggling, the richest nabob in all the land had not money enough to warp it a hair's breadth from its course. We look back, now, with great interest, along the track it has made in all these years, but not to the billows ahead her keel has yet to cleave. Our soul is with the cast-off baby-shoe, behind in the dim distance, and not to the boots and spurs of martial manhood. Ah, well, yes, we must, we suppose, say with Saxe—

> "We are getting old!"

DEATH OF DR. RICHARDSON.

Dr. John W. Richardson died at his residence in Rutherford County, Tennessee, on the evening of the 19th instant. The first meeting of the Medical Society of the State of Tennessee the Senior Editor of this Journal ever attended, now twenty-two years ago, Dr. John W. Richardson was its President. The meeting was held at Murfreesboro'. The late President of the American Medical Society, Prof. D. W. Yandell, M. D., accompanied us in a private carriage, and it re-

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quired us two days from Nashville to Murfreesboro', against an hour and a half by rail to-day. We shall never forget how favorably we were impressed with the mild manner and benevolent handsome face of the President. In April, 1872, he attended the last meeting of the State Society, and read an exhaustive paper, which, if he had never done anything else in his profession, outside of his laborious rounds as a practitioner, would have made him prominent in the front rank of the physicians of his State. Our individual judgment was worth nothing, but it had settled upon Dr. Richardson for the first vacancy that should occur in the Department of Medicine in the University of Nashville. There was, to us, something peculiarly winning in his oratory, which, while neither full nor fluent, had a certain earnestness and air of sincerity that grasped conviction in the very beginning, and held it ever afterwards. It was, too, so mild, so conciliatory and courteous, that it was rather pleasurable to be defeated by him in debate. His talents were of the highest order, and his habits of study and investigation gave them that shape and potency which enabled him greatly to distinguish himself among his brethren and fellow citizens generally.

Dr. Richardson was not only a good Churchman, but a good man, and he was among the very few physicians of the State in whose presence Envy herself found her bow unstrung and her quiver arrowless.

The judicious Editor of one of our City dailies, in concluding a truthful notice of the death of Dr. Richardson, says: "In private life, Dr. Richardson was a singularly estimable man. He was ingenuous and noble in his friendships, and these were as many as his acquaintances. He was charitable, not in the doing of benefactions merely, for the needy of every degree and color, but in thinking no evil of his fellow-men. In principle and conduct he was a Christian, and was a pillar of the religious faith which he espoused. Slight of frame, and somewhat stooped in figure, he bore a countenance of mingled meekness, intelligence, and strength—a frail casket, whose contents were a combination of mental and moral quali-

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ties, which it were better for the world he has quitted could it be oftener seen. His remains will doubtless lie unobtrusively marked amid the scenes of his labors, but men less useful and deserving in their day and generation, are commemorated in the costliest marble."

BOOK-NOTICES.

OVARIAN TUMORS—THEIR PATHOLOGY, DIAGNOSIS, AND TREATMENT, ESPECIALLY BY OVARIOTOMY. By E. RANDOLPH PENSHEE, M. D., LL. D., Professor of Gynæcology in the Medical Department of Dartmouth College, &c. &c. Octavo, pp. 550. New York: Appleton & Co. 1872.

One of the *best* monographs we have ever read.—W. T. B.

GENERAL AND DIFFERENTIAL DIAGNOSIS OF OVARIAN TUMORS, WITH SPECIAL REFERENCE TO THE OPERATION OF OVARIOTOMY; AND OCCASIONAL PATHOLOGICAL AND THERAPEUTICAL CONSIDERATIONS. By WASHINGTON L. ATLEE, M. D. With thirty-nine Illustrations. Philadelphia: J. B. Lippincott & Co. 1872.

Dr. Atlee has, for more than thirty years, given his special attention to ovarian tumors. He has had more cases, and has performed more operations of Ovariotomy, than any Surgeon in the United States. He is therefore in the best position to speak and write authoritatively on the subject. The above work embodies his own experience, recorded at the moment of examination. He has called the attention of the Profession, more fully than any other author, to the elements of a positive diagnosis between the different kinds of cyst, by the chemical and microscopical examination of the fluids contained in them. The book will be highly prized by the profession.—W. T. B.

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THE PRINCIPLES AND PRACTICE OF SURGERY. By FRANK HASTINGS HAMILTON, A. M., M. D., L.L. D., Professor of the Practice of Surgery, with Operations, and of Clinical Surgery in Bellevue Hospital Medical College, &c. &c. New York: William Wood & Co. 1872.

The author of the above work has rendered his name famous by his book on Fractures and dislocations; it is undoubtedly the best on those subjects in the English language. In our opinion he has not sustained his well-earned reputation in the publication of his Surgery. W. T. B.

THE SCIENCE AND PRACTICE OF MEDICINE. By WM. AITKIN, M. D., Edinburgh, Professor of Pathology in the Army Medical School. Third American from the Sixth London Edition. Edited by MEREDITH CLYMER, M. D. Octavo. Philadelphia: Lindsey & Blackiston.

This work has been thoroughly revised, and the present edition will add to the reputation gained for its author by its predecessors. It occupies the front rank amongst works on Practice, and merits all the praise that can be bestowed upon it.

LESSONS ON PHYSICAL DIAGNOSIS. By ALFRED LOOMIS, Professor of Institutes and Practice of Medicine in the University of New York. 8vo., pp. 240. New York: William Wood & Co.

We make no exception when we say that this is the best little book on physical diagnosis that could be placed in the hands of the student.

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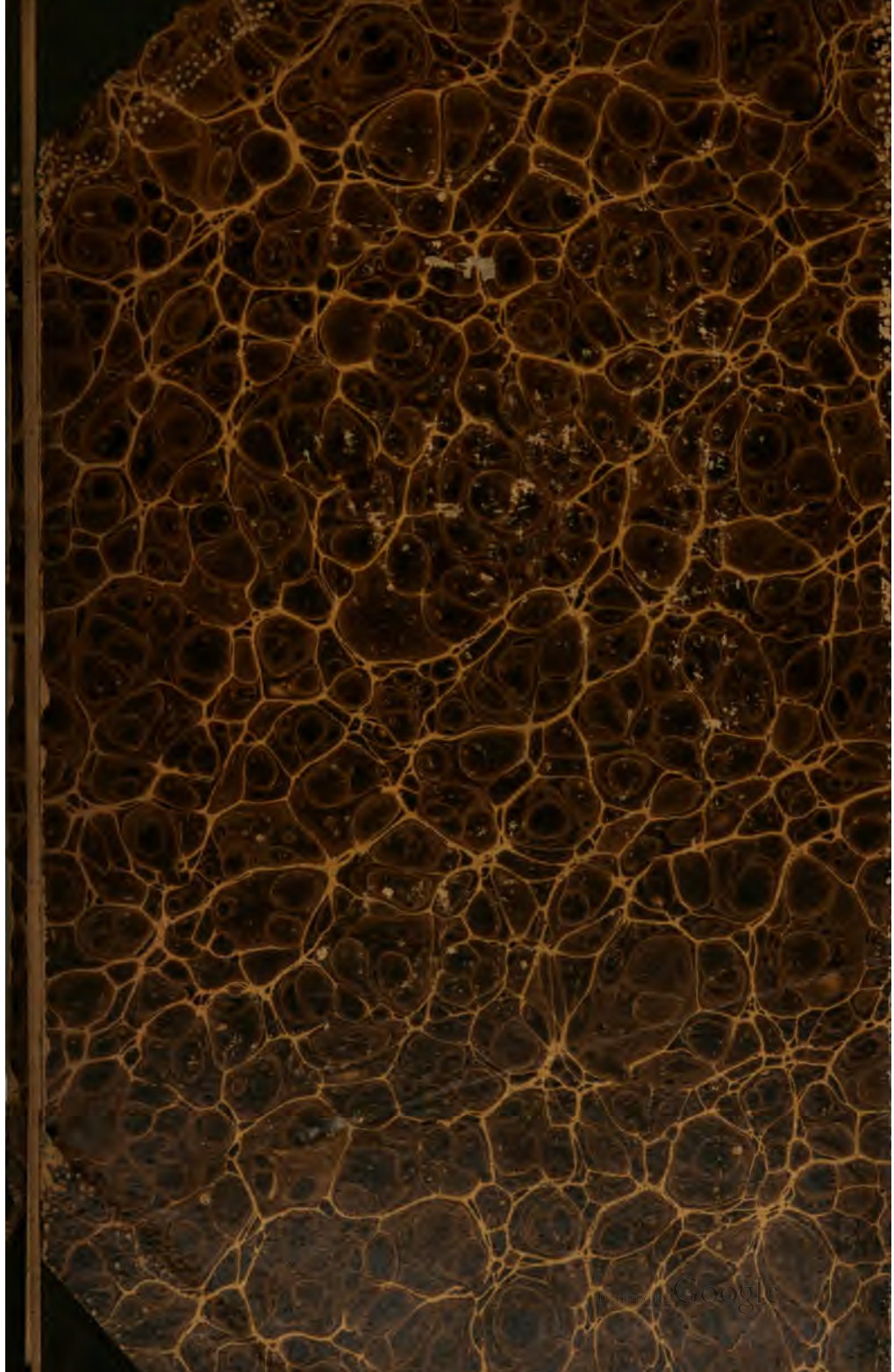
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